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The Budget Making Season!

Easing that Difficult Step from the Eighth Grade to the High School

A Superintendent's Wife.

The eighth grade belongs to childhood; high school belongs to young manhood and young womanhood. No matter how hard we try to bridge the chasm between the two, the step is a difficult one. The eighth year belongs to "the grades," with which the child has been identified all his school life. High school is—well it is *high school*, with high school traditions, high school activities, high school hours, high school subjects, high school teachers, whose preparation for, and attitude toward the work is different from that for the grades. In the majority of schools, consciously or unconsciously, the task of the grades is to make all the pupils the same; the task of the high school is to develop personality and make them all different. Perhaps the junior high school will in time make the adjustment so gradual that there will be no noticeable line of demarcation in public school life; but at present there are so few junior highs that really function that they do not affect the problem as a whole.

The step from the familiar grade conditions to high school life and requirements is not easy for the child who is already a part of that school system, who is in his home school; it is ten times as difficult for the pupil who is transported from a one- or two-room school. This girl (or boy) has all the adjustments to make that the town child has, *plus* those that come with her changed environment. She is, in the vast majority of cases, not dressed like the town girl, she is not combed like her, she does not talk the same, she does not walk the same, she has not the same manners, she has not had the same opportunity for thorough and broad preparation. Only the pathetic faith and boundless courage of youth make it possible for her to hold out against such odds. We older folks couldn't stand up to it day after lonely day.

Much can be done to ease the difficult adjustment. The first requisite, as in all such adjustments, is an understanding sympathy. Superintendents, principals, teachers, can do much to create and foster this sympathy among the pupils by simply showing it themselves. Let us begin with the first day: It ought to be possible for the receiving teachers to have, beforehand, a list of the stranger-pupils, with their addresses, at least. A little word—"That is a familiar name; I wonder if you are a daughter of the Mr. Steelman who has the store;" "Springtown? I believe I know your teacher there;" or "Miller's. That is where we go for wild azalea every spring," would mean a glad human touch that would help to ease and illumine that long, difficult first day. We are apt to feel that when a child has been brought through the grades to where the freshman year is in sight, his future school success is up to him. Within the week I have heard a schoolman of long experience with this phase of the work say that in the case of these stranger-pupils fully fifty per cent of their success depends on the attitude of the high school toward them.

A high school that is fortunate enough to have a dean, or adviser for girls, can put this problem very largely into her hands; but as yet few enjoy such a happy addition to their staff, and the work must be handled by the regular faculty.

In some high schools the junior class is expected to be "big brother" to the freshman, the senior class to the sophomore, and the first func-

tion arranged is a reception given to the freshmen by the juniors. This may be managed so as to work out very well; but it always seems to me that it is easier on the newcomer when he is expected to *do* something himself, instead of being *done* by the other fellow. An evening arranged for the pleasure or benefit of some children's home; a candy sale to start the class treasury; or a simple class party, where *every* pupil, if possible, has something to do, helps the strangers find themselves and their places in the scheme of things. The affair can be handled so as to bring out their intelligence and possibilities, not their ignorance, and so give them faith in themselves. A little later they will be more ready for the party given them by the juniors. During the year these same freshmen can give a party to the eighth graders, so paving the way for next year.

A high school near my home has worked out a plan that has proven very satisfactory. On the first Saturday in June the school gives what is really a reception to next year's freshmen, but it is tactfully called an athletic exhibition. Informal invitations are sent to all prospective freshmen and their parents, special pains being taken to encourage those from outlying districts to attend.

One room is given over to exhibits of hand-work from the various departments—sewing, cooking, basketry, woodwork. Music is furnished by the school orchestra. During the forenoon the superintendent explains that, as so many of next year's class are together he will take this opportunity to explain the high school curriculum and the various courses into which it is divided. Printed copies are distributed and the members of the incoming class are urged to think the matter over during the summer and to talk it over with their parents, in order to select wisely in September. A short athletic program leads naturally to games, in which the guests are invited to join. Cocoa and lemonade are served to help out the box lunch brought by the visitors, and during this time there is opportunity for introductions all around, questions, and discussion. A baseball game is arranged for the afternoon.

This exhibit of high school opportunities and of goodwill is a most attractive and effective form of invitation to join; and it is a wonderful preparation of the mental attitude for next year.

Reaching individual pupils by means of pupil-sponsors has many possibilities—and a few dangers. Not every boy in the senior class is capable of properly advising his younger school-brother. The same is true of girls, of course. These sponsors should be selected with care by the faculty, including the adviser where there is one; they should be instructed as to their duties and opportunities, and assisted when necessary. When the right girl is found she should not be given too large a circle—four to eight has proven the best grouping—and should be left to make and find her own opportunities. She will soon learn that she can help her young charges with the particularly weak spot in the day's work; she can advise in adjusting the course of study if it was unwisely chosen; she can discuss the matter of dress for the various school functions, etiquette, manners, behavior both in and out of school. I heard of one sponsor who came to the Dean and said, "Miss Steele, I don't want to tell tales, but I am really worried about Clara Almer.

Her mother works in an office and Clara is on the street from the time we leave school until six o'clock, and she has gotten in with a dreadful crowd." The dean thought it wisest that Clara should come to her voluntarily, but the sponsor had a hard time making the girl believe that the dean was an advisor and friend, not a disciplinarian. Finally Clara came. After much patient labor by the dean and the sponsor the girl's afternoons were filled with wholesome activities, she was won away from her street associates, and saved from all that goes with street flirtations. She completed her high school course and is working her way through college.

This sort of guardianship is of course excellent training for the sponsor, as well as for her charge, but not every pupil is fitted for it. It requires one who has what the Spanish call "a gift of people." Such a sponsor can do much to induce a shy girl to enter into the extracurricular activities, help her plan her costume for an affair, find ways and means to secure that costume, and in general extend to the girl who is almost submerged with strangeness and newness, the friendly hand that may mean the difference between success and failure. There comes to my mind as I write, the story of a country girl who, instead of boiling the egg her mother gave her for her lunch every day, sold it to her sponsor at market price, to secure part of the pin money she so much needed.

Junior and senior class friendship toward sophomore and freshmen, and well-chosen sponsors can do more to hold the newcomers to school for the full four years' course than all the talks that all the members of the faculty can give.

But the person whose hand guides these activities, be it principal, dean, or teacher, must think of supervision as inspirational oversight, the art of getting *others* to do, and as many of the others as possible. In working up a program of any kind we are too apt to think of making the affair as successful as we can, and so lose sight of the main, underlying cause for all this activity—the development of the pupils. The real aim, in all the school life, from a corn roast to the senior play, is the development of the individual, and *every* individual. These activities should help every child find himself, not serve as occasion after occasion to prove to the bright boy (and his mamma) how bright he is, and to the plodder how stupid he is. This is not easy. It takes courage of a high order to give a part in an entertainment to Jane because we know it will bring her out, when Beatrice, Beatrice who is so stylish, and pretty, and popular, wants it. At every turn the question confronts us, "Do I want the nicest party possible, or the one that will do the most good?"

When Ben Hur trained his horses for the chariot race he trained the fastest horse to the fastest gait of the slowest horse, and so made teamwork possible. A school where the bright child, which frequently means merely the favored child, is speeded up to his best and kept in the foreground all the time can not possibly develop the teamwork and school spirit that results where all are brought forward together. And this does not mean repression of the bright child. Ben Hur's fastest horse had not been compelled to reduce his individual gait; he was free to run as fast after the race as before. But he had been taught to strive with *others*, and adapt himself so as to achieve a common victory—something which every boy and girl must learn sooner or later, if success is their goal. To know the world as it is, and to fit ourselves into it is a greater factor in success than is isolated, undisciplined brilliancy.

(Concluded on Page 145)

Some Types of Misconceived Supervision of Instruction

Chas. A. Wagner, Superintendent of Schools, Chester, Pa.

The following citation is so much better as an introduction for this paper than any statement I might write, that I gladly lay the prepared introduction aside and present this statement from the February 7, 1923, issue (Volume II, Number 3) of the "Educational Research Bulletin," beginning on page 46, second column:

"The teacher works from sun to sun, but the superintendent's work is never done. The postman recently brought us this:

"The management of a consolidated rural school is a constant challenge to the best within its Superintendent. Add to the teaching of four high-school subjects daily, the responsibility of ordering school supplies of almost every kind, the procurement and sale at cost of books and writing materials to 250 pupils, the booking of many accounts, the management of the community's Lyceum Course, *preparation for and presidency at teachers' meetings designed to be helpful rather than formal*, the placement of teachers in the community when help is needed, *the satisfactory allotment of work to teachers, the supervision and measurement of teachers' work*, the oversight of such outside movements as sale of Christmas seals, the supervision of free transportation of pupils, the maintenance of diplomatic relations with the janitor, rendering satisfactory reports to one's superiors who want to know what is going on and trying to find time to carry out orders for improvement, the application of oil to cut down excessive friction in different parts of the machine, the patient consideration of long-winded agents, the bestowal of encouragement and cheer everywhere in the community, and you have formed some idea of what the head of at least one rural school is attempting to do. Needless to say, he is not living up to the wonderful opportunity for service his school and community offer.

"The kindness of his superiors permits him to go along without much interference, but when the time is ripe, their aid and cooperation will be especially solicited in the solution of large problems."

Had it been requested, a better example than this passage could not have been written on the confusion in thinking and in the use of the terms "supervision and administration." Refer to page 38 of the SCHOOL BOARD JOURNAL, issue of February, 1922 (Vol. 64, No. 2). The fact that the writer of the extract regards his work as supervision also constitutes the reason for making it the introduction to a discussion of misconceived types of supervision. Everything is in the present tense, hence the timeliness and appropriateness of the discussion. In a later paragraph the phase of misconception which the citation typifies will be presented. Let it be clearly understood, however, that the value of the work of the supervisor who pictures himself in the citation is not belittled nor ignored. Few supervisors do work as valuable as that supervisor does, and does every day of the school year. That he looks forward to a day when he may give time "to the solution of large problems" shows that he has a better conception than his working conditions permit him to put into effect. Not to become wearied and hopeless in his ceaseless round of small administrative duties, and still to hope for the season when he shall have time and even help for real supervision, shows him possessed of both the right conception and of the quality of courage needed to be a real supervisor.

The entire subject of supervision of instruction is in a formative, experimental stage,

hence some wrong notions and applications still appear right. They have not been proved relatively valueless or even injurious by comparison with better procedures. Discernment of the wrong conception can often be made clear and convincing by experience and by contrast and comparison with the right conception. Not intentional nor purposed misuse of time and opportunity can be charged. Simple, unstudied complacency with an inheritance, with a tradition that has been unconsciously assimilated, does constitute the accepted notion of many supervisors of their obligations and opportunities. Are they not following the example of the supervisor who developed them? Was not he a supervisor with a big reputation? If imitating his example and if working in his spirit, why are not they, too, earning commendation?

Superintendents of long service can still be found who know only the outward form and appearance of supervision of instruction. With regret it must be said that much of the best supervision of the day has been worked out in small units, where the supervisor personally is able to come into contact with the teacher. The supervision is close range supervision, and hence sure to develop the right practices merely because it is a human relation and intercourse. A brief characterization of some of the types is here presented. The types will be shocking but they are also intended to be illuminating. Here and there some supervisor needs to see himself as others see him, whether or not this delineation meets his eye or fits his case. If true and correct, the descriptions will confirm suspicions and verify opinions that are widespread, as is abundantly proved by teachers' attitudes toward much so-called supervision. To accomplish its full measure of results supervision must have the respect and cooperation of teachers, hence supervision should be made worthy of the respect and support of the good teachers. Image smashing becomes justifiable the very first minute that the images hinder and delay progress.

External Requirements of Supervision of Instruction.

Several steps of the procedure of real supervision must be used by the misconceived types also. There must be visits to teachers and to schoolrooms, more or less frequently. There must be some form of exchange of opinion or communication of impression after the supervisory visit. There must be some form of record or registration of this impression so that later the impression may be used to judge the worth of the work of the teacher. This is the irreducible minimum of supervisory procedure that can be made to look like supervision. These externals of supervisory procedure must be a part of all supervision, real and perfunctory but the inner spirit and inward working of that spirit are, alas, not assured even if the outward forms and procedures are gone through with in regular order and in perfect form. Real supervision discerns excellences as surely as faults, it speaks approvingly of excellences and suggests improvement of faults, it directs the searching teacher to sources of help and encouragement, it seeks and invites the confidence of the teacher through conferences for helpful planning of work, and after the plan has been worked out it allows the teacher full credit for her share of the success. Such responsibility real supervision must agree to accept if it be possessed of the larger knowledge and of the wider experience which incumbency ought justly to imply. The misconceived types generally lack both inner form and inner spirit of

this real supervision, though possessing all the merely external marks.

Distinctly Misconceived Types.

1. *Detective.* No characteristic of procedure of the smart and stealthy detective is lacking in this type. It starts with suspicion that there is something that needs discovery, something that is being concealed. Very generally it suspects that in the absence of the detective (called supervisor) the teacher is not doing as well as she should do. Peeping through keyholes or through transoms, climbing to lofts to look down through skylights, standing in corridors to get fleeting glimpses into rooms as children leave or enter, these are varieties of "gum shoe" supervision. Trying to worm facts out of unsuspecting pupils or parents after pupils have reported school occurrences at home, or out of visiting teachers or principals, also belong to the same type. In other places and by other supervisors the procedure varies but its conception never rises above the conception of suspicion of wrong doing or of failure to do the full duty of the teacher. Resting upon suspicion and asserting itself by stealthy procedure, it may arouse fear but is sure to beget inexpressible and immeasurable contempt for the supervisor who carries on his office in the spirit and by the method of the good detective. No trust, confidence, sympathy of a professional kind can be aroused or nurtured by such methods.

2. *Humming Bird.* There are many teachers and there must be frequent visits. Time for visiting is very short, hence no visit may be long, and hence, also, it may not be arranged for or announced in advance. Like the humming-bird, the superintendent pushes his nose fairly inside of the door, sweeps his eyes about the room to notice the order; he may say "good morning" and "good bye," but he is then off to the next room. A temporary but startling disturbance of teacher and pupils which show that he is still on the job and flitting about, as if that might be comforting to them even as it is important to him, is the net result of his intrusion. He may feel that work is going well or otherwise, although it would be hard or impossible to trace any of the good results—if such are secured in any schools thus visited—to his influence. Bad results, if nothing more than the interruption of regular work, are surely chargeable to such intrusion, to such a visitation. For the teacher who deliberately plans to take it easy when not being watched, the unexpected, brief visit does have value but there are better ways of dealing with such a teacher. What a shame and reflection on a body of teachers to put the entire corps on the level and into the class of the one or two. From its very nature this type of supervision cannot win the confidence and cooperation of the teachers; there is nothing to cooperate with!

3. *Sphinx.* It is almost inconceivable that any person, having love for children and desirous to promote their development, could go into a schoolroom, witness what occurs there in almost every school, and come away with without any indication or expression of his pleasure or disappointment. There are records of superintendents who prided themselves upon their ability to visit a school and to leave it without the slightest sign of any feeling of any kind, just as the American Indian prided himself on his stoicism. To show pleasure was believed to injure the teacher since she might relax her efforts; and to show displeasure was deemed lack of self-control of the superintendent. If any one type of misconceived super-

vision has inflicted more pain and suffering than another, it is the "sphinx" type. Although such superintendents have been known to feed most greedily on praise bestowed on their own work by boards of education or by superiors, they appear to fear to bestow even a smile of approval upon the work of highly deserving teachers lest the praise spoil the teachers and induce abatement of effort. What pain and disappointment teachers in many school systems have suffered and are still suffering under new superintendents who aspire to the type of the uncommunicative sphinx as their model in supervision. Not trust, confidence and sympathy in professional relations, but shuddering revulsion, personal and professional, come from this type.

4. *Fish Wife.* Lest teachers and pupils should not learn how the superintendent himself excels as a teacher, he takes the class every time he comes to visit. He must impress the class with his knowledge, with his superiority and with the teacher's inferiority. For the same reasons, even after the class work has been interrupted and generally has been spoiled for that day, the superintendent must also make a speech, usually to reprove someone for a fault which he has observed. Thus he reinforces his superiority, and earns his right to be classed with the scolding "fish wife." This type ranks second to the "detective" type in the contempt and dislike which it begets for itself with children and teachers.

5. *Nettle.* Correction of faults openly before the class or the school is entirely wrong in tact and in professional etiquette regardless of how necessary the correction may be. To correct what needs correcting is one chief responsibility of the supervisor; therefore correction is the due of pupil and teacher. The teacher is entitled to treatment with respect and consideration before her class even for errors of neglect after a first or second reproof in private. Here, too, the superior causes mischief by open and public reproof. If deliberately done to wound the teacher it is equivalent to a personal assault and ranks level with the strong man who fights a cripple. Even very young children will give their sympathy and support to their teacher under such acts of a supervisor. They have been known to cry with her and for her under such an attack, and never in all their lives to regard that superintendent as entitled to any respect, but have bestowed upon him their unmixed and unmitigated loathing. Hurting people for the mere sake of showing that you can do it is brutal and despicable. Children show how unerringly correct are their instincts when they resent "rough treatment" of their friend, the teacher.

6. *Machine.* To expect every class in every school in every grade in every subject to be reciting the same lesson from a specified textbook at a given hour by the clock, is a fine conception from the purely mechanical point of view, but such a procedure is deadly and killing as a supervisory goal. This type runs into fine discriminations and distinctions of all kinds, whether productive of good or otherwise. At each visit, something must be counted. One time it is the sticks of crayon used, another time it is the number of sheets of penmanship practice paper used since the last visit. Something is under inspection all the time, now for this and now for that unimportant distinction, as whether the spelling books now in the hands of the pupils have stood two or three years' service. None of the misconceptions presented falls so pitifully far below the possibilities of real supervision as this one, although out of inspection has supervision been slowly evolved and perfected. When saving money was the large justification of administration (misnamed supervision), it seemed necessary to treat the saving of pennies as a large supervisory suc-

cess. Supervision must now justify the expenditure of money to raise men and women, hence the penny-saving measures of the niggardly hoarder must give way to the conception of a supervision that shall find better, shorter, more joyous experiences through which the untaught child shall come up most certainly to a complete realizing, spiritual adulthood. Measuring and counting are not forms in which spirit clothes or disports itself. Not the least possible outlay, but the wisest and most economical outlay of what is needed to attain the ends desired constitutes the difference between inspection (machinery) and supervision.

7. *Bully.* This type and type five have much in common, but also have several distinctive differences. The "bully" feels that he must show his authority. To fail to do so wounds his self-esteem and pride, and these must be maintained, else he cannot act out his character. No teacher may say so much as a word in explanation or justification of herself while correction is being administered. To tolerate that would be official weakness, and the teacher who offers such explanation is likely to be regarded chargeable also with impudence and insolence. This is sure to be true if the teacher differs with the superintendent's opinion. The exercise of the qualities of the "bully" as superintendent is often a cloak for professional ignorance and lack of resource. The bulldozing forestalls questions and defensive rejoinders. The teachers suffer. No trust, sympathy and professional cooperation come to the bully. Dread is inspired by his appearance on the scene and a retributive hatred arises after his departure.

8. *Zero.* Little or nothing of real supervision ever engages this type. To fill the office and draw the salary fulfills his entire conception of the office. Everything seen is "satisfactory" because he knows nothing better, could do nothing better himself, and can suggest nothing better to the teacher. Requests for criticisms or suggestions are met with evasive questions or with cryptic remarks, which are expected to silence the seeker of help and to conceal the near limitations of the superintendent. Often this supervisor has had no special training and no preparatory experience, and is making no effort to learn the job by study of current practices. This supervisor conceives the job chiefly as place-keeping, the real mathematical job of the 0, whence the name of the type. The chief damage of this type is that all supervision gets a bad name from it, and that a real supervisor is prevented from doing a real job in that place. Usually the supervisor is not deceived about his counterfeiting.

9. *Flywheel.* The flywheel has a highly useful work to perform in mechanics. Steadiness and uniformity of motion would be unattainable without it. But the flywheel makes no progress.

It always goes around in the same place, from starting point back again to starting point. In just that respect the citation stated and used for introduction shows the "flywheel" type of supervision. All its time is spent in a daily, ceaseless round of very important duties which are not primarily the right work for a supervisor, duties which an administrative assistant could be trained to perform and should then be assigned to perform them. The supervisor now floundering in such a mass of mixed duties will help all supervisors and all supervision if he not only hopes for the time "for the solution of large problems," but if he also is agitating and contriving for it actively and aggressively. Among his duties as stated there are but three listed which are truly supervisory. They are in italics so they may be distinguished. All the rest are administrative, that is, they must be done over and over again, always in about the same way, and doing them today will not obviate their recurrence. Of such routine recurrence the flywheel is surely our best example. What this type misses is the time and energy for what supervision should do in the way of *construction* and *contribution* to professional progress in instruction. The misconception is well worth pointing out.

10. *Composite.* These distinctive types of supervision have been seen and studied. Modifications and combinations of the several types into a single different type can easily be found. It would be easy also to describe a "grouch" and "gas bag" type. In the June, 1920, issue of *Education*, on page 642, Maro S. Brooks, deputy commissioner of education of New Hampshire, discusses some of the types here described and also describes some aspects of variant types. Prevalence of the types is not doubtful nor mythical. Almost any teacher of ten or more years' experience can give name and place where several of the types have held office, and in many cases can designate present representatives of pure or mixed examples of types.

Conclusion.

These types will persist in school systems so long as supervisors are chosen without regard to previous preparation and experience. So long as supervisors, men or women, are promoted to the supervisorship or superintendency as a promotion to a higher salary, or to bestow a larger responsibility and to confer honor, the eradication of these irritating, injurious, and mischievous types of supervision must wait for the general acceptance and application of the truth that supervisors need special training for supervision just as teachers need special training for teaching. The system which appoints a person as supervisor because such a person has been very successful as a teacher and is regarded as entitled to higher pay, is taking a big risk and is imposing grave hazards upon its school system. It would be far wiser and cheaper to pay the successful teacher more in the place where he is already a success, and not to promote him to the higher position until he has prepared for it. Just as the mistaken notion that any one who knows a subject can successfully teach it has been dissipated and disproved among educated people, so has the notion that any successful teacher can become a successful supervisor. All that can be truthfully said is that it may work out, but there is large risk in it. Supervision demands trained power and skill which may be entirely lacking in the good teacher. Wasted revenues spent for salaries of superintendents and supervisors, wretched teachers, unwilling and unhappy pupils, disappointed parents and taxpayers, and discontented public, are all results which have been deliberately, if ignorantly and unconsciously planned and paid for in maintaining and in retaining these misconceived types of supervision of instruction.



Simplified School Accounting - III

Arthur J. Peel, C. P. A.

In March we surveyed the field of school accounting for the purpose of obtaining a general idea of its ultimate purpose and results. We now propose to follow each step in detail and in this way present to the readers a working system of school accounting which may be applied by any school officer with comparative ease.

Too much emphasis cannot be laid on the importance of getting a right start. To the educational fraternity there should be no necessity to labor this point; it is thoroughly recognized in school work. And yet in the offices of some town and county superintendents, the writer has seen the fundamental cause of chaotic accounting in the manner in which bills are handled the moment it is received by the school superintendent or his clerk. In many cases these bills and claims are thrown into a desk tray or basket, no attempt being made to record them. From time to time requests are received by vendors and other claimants for payment of their accounts and then a hunt is started through the accumulated mass until the bills are discovered; a hurried, and sometimes perfunctory check is made of the items and charges, and a warrant, or order, is made on the county treasurer, authorizing payment. Later, an entry is made in a cash book or warrant register, of the amount of the warrant, and to whom paid. But, in the tray there are still a number of other accounts all representing expense chargeable to certain functions of school organization; what the total amount of this liability is, no one knows. Some day they will be paid, but before issuing the warrant, check, or order, the superintendent will be puckering his forehead and wondering whether he has not already paid certain items shown on the bill as "account rendered"? This may necessitate spending fifteen minutes or more hunting through the stubs of his warrants, or through his file of paid accounts (which of course are not filed alphabetically!) until he is satisfied that the arrears have not been paid before; or perhaps, he pays the account without being satisfied at all!

One could wish that this were purely an imaginative case; unfortunately it is not. The writer has actually seen this happen, and worse things, in the course of school audits. Of course the superintendent of the county, the school district, or the town school system, complains that he has no time for proper bookkeeping, and that he has too much to do! There is no work that devours so much of a busy man's time as unsystematized work.

Because expenditures demand more detailed record than revenue, we are going to discuss first the right method of handling bills, payrolls, and all other forms of paper which establish a charge against the school committee or board. The sources of revenue are limited to six or seven and the procedure necessary to record and classify this, is very simple and demands much less time and attention than expenditures.

In this series of articles we are adhering strictly to the subject of accounting in its narrow sense, and for this reason we cannot flirt with allied subjects, such as methods of purchase control, stock keeping, and stores control. We must assume, therefore, that every bill received in the office of the superintendent, or secretary, is covered by some authorization, preferably by a purchase order. We will even go a step further and assume that on receipt of the bill of purchase of goods or service, a certificate of receipt is attached as evidence

that the goods or services have actually been received, or rendered. It is a great temptation to digress here and demonstrate the serious consequences of attempting to run a school district without a proper system of purchase and stores control, but this must be reserved for a future occasion. Some splendid articles on this important subject have already appeared in the JOURNAL.

On receipt of a bill or a claim against the board, it should be filed with other unchecked bills until it is ascertained whether the goods have been received. If the receiving slip, or certificate of receipt is in the office, the bill should be checked at once as to computations, extensions and totals; the office copy of the purchase order and receiving slip attached thereto, and the whole filed with other accounts which are ready for registering.

The receipt of an invoice or claim constitutes a liability on the part of the board which affects the available balance of the appropriation; for this reason it should be recorded at once and in such a manner as will insure it being charged against the proper department of school activity. The question as to the payment of the account in no way affects the bigger question—from an accounting standpoint—as to what expense has been incurred, and the department chargeable, for an expenditure has been made just as surely as if a hundred dollars had been paid out in cold cash.

To take care of this primary requirement, the use of a Voucher Register is recommended. In order that there may be no confusion in the use of terms, it is explained that a "voucher" in the sense in which the term is used in this paper, is any form of bill, invoice, payroll, or other document which records a charge against the administration, which has been properly

checked and certified for payment. A common practice is to attach the original document to a "voucher form" on which is shown the account to be charged, the name of the payee, the amount of the account, and various other items which may be required for properly recording the transaction. These forms vary considerably, but the form indicated as Figure 1, is a simple type of voucher form which has been found to meet practically every condition arising in school board accounting. It will be noted that space is provided on the form for:

A voucher number: (These should run in sequence throughout the year.)

The name of the claimant (In the case of payrolls, the word "payroll" would appear in this space.)

The character of the claim. (This is just a catch-line.)

Distribution of expense by:

Appropriation number,

Account number

School code number.

Initials of clerk checking and registering voucher.

Certification for payment by superintendent or secretary.

Authorization of payment by chairman of board or committee.

This, or a similar form of voucher, should be used for every invoice, payroll, or other form of claim presented, or prepared for payment. There should be no exceptions, for the moment an exception is made there exists a danger that something will slip by without being properly entered in the Voucher Register.

In one school board office the writer has seen a voucher form very similar to that shown here, but made in the form of an envelope, one end being open to allow the insertion of the original bill or payroll. The envelopes were filed away in numerical order. This arrangement was good but expensive, and for this reason it is not recommended here, as the advantage of the envelope over a form attached to the original bill, is not so great as to warrant the additional expense.

On the completion of this preparatory work, the invoices, payrolls and claims are now ready for entering in the Voucher Register, and on the care and accuracy of this preliminary step hangs the success of the entire system.

The Voucher Register (Figure 2) is a monthly form and only one month's transactions should be recorded on each register. If the number of accounts payable exceed the available space on one sheet, an additional sheet should be used, but on completion of the entries for the month, the register should be closed regardless of the amount of unused space. The reason for this is that the totals of the columns shown on the register are to be posted to ledger accounts, and such postings should not be made at longer intervals than once a month. A question may arise here as to whether the Voucher Register is to show all the accounts received for payment during the month regardless as to whether they represent expenditures applicable to that month's operations; or, whether the register should show only the accounts representing expenditures chargeable to one month's operations? This is a common problem in school and government accounting, but the writer does not consider it a vital one in school accounting, if a reasonable amount of attention is given to the matter of getting vendors and other claimants to render their accounts promptly. Every superintendent, or secretary, should insist that all bills against the board, or committee, should

VOUCHER NUMBER	\$		
CLAIMANT			
for			
Date of Acct 192...			
Distribution of Expenditure			
Appr. No.	Account No.	School No.	Amount
TOTAL			
Checked & registered by			
Date _____			
Certified for payment			
Date _____ SUPERINTENDENT			
Authorized for payment			
Date _____ CHAIRMAN OF BOARD			

FIG. 1. MINIMUM FORM FOR A VOUCHER.

SCHOOL BOARD JOURNAL

VOUCHER REGISTER No. for Month of 1921			DISTRIBUTION OF CHARGES												GENERAL ADMINISTRATION												SUPERVISION												INSTRUCTION												MAINTENANCE BUILDINGS												OPERATING BUILDINGS												AUXILIARY AGENCIES												WELFARE ACTIVITIES												FIXED CHARGES												STORES												SITES, REPAIRS, MAINTENANCE AND ENTERTAINMENT												GENERAL CHARGES																																							
VOUCHER NUMBER	DATE OF VOUCHER	ISSUED IN FAVOR OF	AMOUNT OF VOUCHER	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175																																																																																															
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171

FIG. 2. OUTLINE FORM FOR A VOUCHER REGISTER.

be rendered promptly, and in the case of monthly accounts, not later than the third of the month following the date of purchase. If this is done the difference between the accounts payable in, and the accounts chargeable to, any particular month, will be negligible.

A little study of the voucher register shown in the cut (Figure 2) will reveal the basic principle of this form of original record. The main purpose of this record is to show sufficient information relative to the expenditure incurred, as will enable the bookkeeper to take off totals and summaries at the end of the month which will reflect a scientific classification and distribution of expense by function, character, and object. But since by very little more effort additional information can be recorded on the same form which will furnish automatically at the end of the month, data which is of first importance, space has been provided for indicating the code numbers of schools, for instance, as there are expenditures which are chargeable direct to individual schools. In another column the appropriation number would be shown; this is provided in case money is not appropriated or budgeted in accordance with the classifications indicated at the head of the distribution columns in the register, and discussed in the last paper. All the information required on the register has already been shown on the form of voucher to which the original bill, payroll, or claim is attached, so that it is only a question of copying this from the voucher to the register.

All vouchers should be entered in numerical order on the voucher register, and care should be exercised to see that where one account is chargeable to two or more departments, the total of the distributed entries agrees with the amount of the account as shown in column "f." The first eight columns in the "distribution of charges" section, cover every class of possible expense in connection with the normal operations of schools and allied educational activities. Columns nine and ten cover all capital expenditures; while the last column is provided to take care of any unusual item of expense which does not fall under any of the regular classifications.

Now as to the results to be obtained from the voucher register: The total of column "f" furnishes the total liability incurred by the board during that month. This total is posted to an account in the general ledger which is called "Accounts Payable—Control Account"; the offsetting entry (the charge, or debit side) will be the total of the checks, warrants, or orders, issued by the superintendent during that month; and the difference between this total and the total amount posted from the voucher register—plus any balance in the account—represents *unpaid accounts*. This is the first important result obtained by using the voucher register.

The totals of all the "distribution of charges" columns, are likewise posted as charges (debits) to accounts in the general ledger which bear the same titles as those indicated at the head of the columns in the register. These accounts

are controlling accounts in which are accumulated all the charges bearing on a special department of school activities; or, in the case of columns nine and ten, the acquirement of capital assets.

If the voucher register furnished no more than what has been indicated above, it would still be a worth-while record to many boards and committees. The writer has been in many school board offices in America, Canada and in England, in which even this information was not available. But this is only a small part of what can be extracted from the figures shown in the register. The columns marked "g" on the cut, are for account numbers; any number in this column would be in the same series as the main account number which is shown at the top of the amount column. For example, "General Administration" is account "100"; the expense objects of general administration would be represented by a series of numbers, 101 to 109; these would include such items as personal service, communication, supplies, and so forth. In each of these distribution columns there would likely be several amounts in the month which would be chargeable to the same account number, and this would necessitate making a summary at the end of the month in order to accumulate in one total the sums chargeable to each account number. This would give us another set of totals or sub-totals, which we would post to sub-control accounts in the general ledger and which would be the same as the accounts represented by numbers in the "account number" columns in the voucher register. These sub-control accounts will be discussed in greater detail when we come to the subject of the general ledger.

It has already been mentioned that certain expenditures are chargeable direct to individual schools, and in order to pick these up the number of the school is shown in the column marked "e." It will be readily seen that posting from the voucher register to the subsidiary school

ledger (this will be discussed fully later in the series) is a very simple operation.

To sum up the advantages of this form of original record of expenditures incurred, we would say that it has this important feature: it furnished the only record from which the posting of charges are made to the general ledger control, sub-control and individual school accounts. This simplifies the bookkeeping considerably and reduces the danger of omitting postings to a minimum. If the entries have been properly made the subsequent work is but pleasant routine, presenting little difficulty and allowing little chances of error.

At this stage in our study it is necessary to take up the matter of accounts and their code numbers, already referred to above. To know an account by a number has this advantage in that it requires less time and space to write a number on a voucher form than it does to write the name of the account. But looking beyond the particularly local advantage, the writer has a vision of a state-wide statistical department in which statistics obtained from a uniform system of school accounting, will be received at regular intervals and will be accumulated in such a manner as to establish incontrovertible data relative to school administration in the state. To do this effectively, economically and expeditiously, it is highly desirable that the Hollerith system of punched cards, automatically sorted and classified, be used, and for this purpose the use of numbers is imperative. It will only be necessary at this stage to give the expense account numbers, as these are the only accounts which are distributed on the voucher register.

All expense accounts are designated by three numerals. In the case of the control expense accounts the number ends with a cipher; any combination of three figures ending with a naught must therefore be a *control account*. The middle figure of the expense code number indicates the *class of expense*; for example, "0"

NAME OF ACCOUNT	Gen. Ad.	Super. Instruc.	Misce. Bldg.	Oper. Bldg.	Aux. Ag's	Wel-fare	Fixed Charges
Regular personal service	101	111	121	...	141	...	...
Other service	102	112	122	...	...	...	...
Fees	103	113	123	...	...	...	...
Communication exp.	104	114	124	...	...	...	...
Printing and stationery	105	115	125	...	...	...	...
Advertising	106	116	126	...	...	...	...
Supplies and material (consumed)	107	117	127	...	...	...	...
Miscellaneous	109	119	129	...	...	...	...
Fuel	...	...	...	...	142	...	...
Light and power	...	...	...	...	143	...	...
Repairs to buildings	...	...	...	132	...	...	...
Upkeep of grounds	...	...	...	133	...	...	...
Repairs and renewals—furn. and fixtures	...	...	...	134	...	...	...
Libraries:							
Personal service	...	...	...	...	...	151	...
Supplies	...	...	...	...	152	...	...
Other expense	...	...	...	...	153	...	...
Promotion of Health:							
Personal service	...	...	...	...	...	161	...
Supplies	...	...	...	...	162	...	...
Other expense	...	...	...	...	163	...	...
Transportation of Pupils:							
Personal service	...	...	...	...	...	154	...
Supplies	...	...	...	...	155	...	...
Other expense	...	...	...	...	156	...	...
Lectures and Entertainments:							
Personal service	...	...	...	...	...	157	...
Supplies	...	...	...	...	158	...	...
Other expense	...	...	...	...	159	...	...
Recreation:							
Personal service	...	...	...	...	...	164	...
Supplies	...	...	...	...	165	...	...
Other expense	...	...	...	...	166	...	...
Pensions	...	...	...	...	...	171	...
Retirement fund	...	...	...	...	...	172	...
Rent	...	...	...	...	...	173	...
Insurance	...	...	...	...	...	174	...
Taxes	...	...	...	...	...	175	...

general administration; "1" supervision; "2" instruction; and so forth. The third figure (reading from left to right, i. e., the unit position) represents some *object* of expense. For instance, the figure "1" in seven of the classifications, represents "personal service"; the numerals by which it is preceded readily show which department the personal service item is chargeable to; "101" for example, must be personal service, salaries and wages paid in the administrative office; whereas "121" would be salaries paid to instructors and teachers. The following chart of account numbers will make this system quite clear, and by the law of association of ideas, it is astonishing how quickly any set of accounts can be memorized by this means.

The account number for "Stores" is "9," but it is usually advisable to sub-divide the "stores" account into "textbooks," "teachers' supplies," "students' supplies," and any other sub-classifications which may be found necessary. The

method of coding these sub-accounts is as follows: Textbooks, 91; Teachers' supplies, 92; and so forth.

The accounts enumerated above are not intended to be complete, though there are few boards that will find a necessity for increasing them. It may be necessary, however, to eliminate some and add others which would better meet local requirements.

It is necessary to say a word relative to the account "supplies" as so many executives fail to realize the importance of charging to this account only such items as are actually consumed in the operations and do not show in an inventory. The ideal method is to charge all purchases of supplies and material to the "stores" account, but unless there exists a physical organization to take care of, and account for all such supplies in the proper manner, the probability is that the stores account would seldom be relieved and the book inventory would show a considerable value of sup-

plies and material on hand which had already been consumed but never charged to the operating departments concerned. Failing the existence of such an organization, a good rule to adopt is to charge to "supplies" all goods and material which are sent direct to schools, assuming that they are all consumable in the school year; but for textbooks and other supplies which are delivered at the office of the superintendent and issued to schools, only as required, a charge should be made to the "stores" account, and each month the value of books and such like, which have been issued, should be credited to the stores account and charged to the "supplies" account, under "instruction" in the general ledger, and to individual school accounts in the subsidiary ledger. More will be said on this aspect of the subject in a later paper.

Next month we shall deal fully with the method of recording revenue and the receipt of cash.

The Rocky Road to Promotion

A School Superintendent, a School Board and a Gossip Ridden Community

A. Boyd.

McMILLAN NEW SUPERINTENDENT.
Over Sixty Applicants.

Selected After Weeks of Careful Investigation
by Board.

Such were the head lines in the local daily as Mr. Dugan picked it up that spring evening. He was alone. His wife and two small children were distributing May baskets among their neighbors.

He sat down to read the article. This was the first information that his services were not wanted another year. He stared at the wall opposite him, and the paper slipped to the floor.

Then anger seized him, and he paced the floor. In earlier years on his father's cattle ranch he had felt more than once the impact of his big fist against a man's face. He had felt vicious beings writhe and weaken in his embrace. His whole frame tingled with a desire to hit one or two individuals. Then he caught sight of himself in a mirror and sat down. This instinct, he reasoned, must not develop now.

As he sat there staring at the wall a battalion of thoughts passed in review. First of all like the leader in front was the thought of Helen. She liked the town. She belonged to two or three of the more important social clubs. Her neighbors were congenial. They were living in the best house they had ever rented in all the years he had been teaching, and it was not for sale, so they could likely keep it as long as desired. The children had excellent playmates. She was never more happily located. Yet Helen had never been intended for the wife of a man dependent upon the whims of public opinion for food and raiment. She was too much inclined to say something and to say it, too, to those in power. He knew her aversion to moving and to where—for a school man must move.

He was ashamed. He had failed. There was a time when Helen had absolute confidence in her husband, that the day would come when he would stand high in his profession, when reasonable remuneration and honor would be theirs. She knew her husband. She knew, too, how men high in the profession sought his judgment and wished to have his influence, how teachers wrote him for advice, how old students, juniors and seniors in college, wrote long letters, vigorous in opinions about current ideas

and asking for suggestions from themes to life vocations. She knew of the thousand little thankless tasks he did when they could have had friends in or could have enjoyed the evening. She knew, too, and regretted in a way his uncompromising attitude when a principle or a question of justice was at stake. She had accused him of still adhering to his high school ideals rather than learning and practicing the ways of men.

But in late years a change had come. She had begun to feel that a city superintendency of six or eight thousand was his limit and after that real estate and insurance may be. For three or four years they had not discussed the future as they had at one time.

So Dugan was ashamed to meet again the one on whom a change fell most heavily.

Next was the professional side. He could hear schoolmen in groups of twos and threes, in the Linville Hotel week after next at the Association, discussing why he had been dismissed and incidentally airing his weak points. If he attended, and the probability now he would not, he knew he would be of much less interest to bookmen and to that class of administrators always seeking for pull and power. He had studied that worried look upon the face of the unfortunate administrator and though he had not failed in twenty years, he knew now this look would be his.

He wondered what his teachers would think. Only a few days before in talking with Miss Mason, she had asked about a possible promotion—a ward principalship—she knew would be open, and Dugan had tentatively promised the place to her. He would now have to see her and explain. He decided though that if it met with her approval, he would take up the matter with Mr. McMillan and try to secure her the position anyway. She was so efficient and deserving.

He smiled as he thought of the arrogant attitude Miss Carl would now take. They had had a misunderstanding since the first of the year and though she followed instructions, there was no friendship on her part. He could see her as they would pass in hallways now that she was possibly beyond his power.

There would be rejoicing among certain patrons and pupils. He could hear Mrs. Kellogg's harsh voice as she would tell the different

board members of their wisdom. For years she had tried to secure a position and had failed because Dugan knew she had the minimum educational requirements and he felt she lacked the ideals a teacher should have. Kenneth Murphy, who had been dismissed from the Dewey after repeated offenses, and who was an habitual loafer round Dunbar's pool hall, would quite likely bawl at him, "How do you like McMillan, Prof?" the first time he passed that way. Kenneth had such a record. Of course, his action was always applauded by the individuals hanging round such places.

But he was in a different frame of mind now, so he picked up the paper and read the story. It was A. L. McMillan from a neighboring state. Dugan had not heard of him before. There were two clippings that doubtless McMillan had left with Batson to have printed. One was from the *Eldorado Argus*. The article went on to relate how the bearer had "straightened out the schools, had written a course of study, how the schools had been placed for the first time on the accredited list of the North Central Association. Dugan wondered if the schools needed "straightening out." He recalled how a board member at a recent session of the high school P-T meeting had stated they had had the best schools in recent years the town had ever had.

The article was full of information. There had been over sixty applicants, yet not one had written the present incumbent. He recalled now of being in the office of a board member a few days before when he had had a long distance call and how that individual talked indistinctly in monosyllables. Three, so the article explained, had made personal visits.

The board had been investigating for weeks. He hardly realized he was so slow. True enough he had not gone to any member about personal matters. In all the years of his services he had never asked one thing for himself. He reasoned if he was deserving the board should tender the position without his asking and if he was not deserving, he should not have it under any circumstances. It was this custom of which Mrs. Dugan complained. It had caused more trouble in the Dugan family than anything else. She had explained time after time that few people were interested in ideals

but in getting the prize. But Dugan was different.

She came in very white and speechless. The children were happy. They had enjoyed the evening and were now busy examining the May baskets brought in their absence. They were put to bed before their elders discussed the matter.

Then as she returned from the bed room: "This is another example of your silly policy of never asking the board for anything, another result of ideals. They have let you out, late in the spring after most of the positions you are interested in are filled. Some day when you are too old, you may learn something of the ways of the world."

Dugan had wanted consolation rather than condemnation. Yet he could stand any strain placed upon him without bitterness. He judged others by himself. When he came to a decision it was without prejudice, malice, jealousy or hatred. He was willing to accord the same to others. He would now be perfectly friendly with the men who had dismissed him. It was quite likely they would seek his advice about the various teachers and he would continue the same unselfish policy and the board knew it.

The Dugans retired without further comment except what Mrs. Kepner, one of the neighbors, had to say. Mrs. Dugan, healthy, practical, and as Dugan felt, selfish, was soon asleep. But for hours there was no sleep for him. He reviewed the possibilities of quitting the profession. Other men had quit and had succeeded in business. Then he thought of his psychology. During the war many had quit and even this spring he had written recommendations for some who wanted to come back. Salaries were never better and business conditions—well, he did not know. Then he knew nothing else. In these long hours the best he could reason was to stay with it.

He would write the university of which he was a graduate, the state department, President _____, of the state teachers' college. He would enroll, too, with an agency. He did not lack courage. His was strongest when there was no support, the lines broken, when defeat seemed certain—never selfishly aggressive in victory.

Dugan was not an old man, yet for years he had not been in sympathy with many of the popular movements. He was aware, too, that he had lost friends and prestige because he did not bark every time some one thought he had found a new trail.

As he lay in bed he thought how he had been so neutral toward the Americanization movement sponsored so loudly by Mrs. A. T. Christman, president of the high school P-T Association, and when asked to speak stated that "magazines were full of the subject. In some sections it was of vital importance. But with us, according to the latest statistics, with less than one per cent in our county foreign born, it is not a problem. Much of the talk about it has a tin-pan sound and individuals in charge of educational affairs in such communities as ours should not consider it seriously. Here are other local problems of much more importance." Now Mrs. Christman was a recognized leader and to attack her present hobby was, to say the least, bad judgment. Dugan felt her influence in several ways during the following months.

Neither had he reflected the popular mind the day he took part in the discussion before the luncheon club on "Radicalism and the Schools." While several men present expressed themselves vigorously against radicalism, innovations, various 'isms, etc., Dugan told them there were no radicals in the local schools, that teachers, as a whole, were a conservative group, that they were fair though even in discussing

the most hated nations or organizations; that on the other hand, there was much to fear from the growing bigotry of the public; that what the schools needed was not the suppression of ideas but a spirit of liberality, a desire to investigate, so characteristically American till in recent years; that the teaching of hatred of any nation or people or of local organizations was bad for international business and wrong in principle; that all of us should depend upon thought more and propaganda less, that the mind of youth should be directed more upon the biography of Lincoln, of Garfield or of Cleveland or Edison, more upon arithmetic and algebra and the fundamentals of science and language, and history and music, and morals and religion, and mighty little upon the hate producing daily press.

The hand clapping, except for a very few individuals, was not vigorous when he closed. "Educator Makes Strange Speech" were the head lines in the local daily that evening. During the ensuing months substantial men heard many rumors and they wondered about Dugan. There was talk of a petition to oust him. No one could remember that he had loudly condemned anything when it seemed necessary for every one to shout. Then, once, he rented the high school auditorium—always open to any reliable organization for \$25—to the Non-Partisan organizers and out of curiosity had attended the meetings—a suicidal act for any public man at the time in this community. So to many he became a man to be watched and avoided.

Mr. Kepner, Dugan's neighbor, met Dr. Stoner, president of the board, the day following the article in the paper and asked why Dugan had been dismissed. Stoner rolled his unlighted cigar in his mouth, jollied Kepner about his new Ford, stalling for time.

"I had nothing," he began, "against the man. I always had great respect for him. But you know the public. We represent the people. They think he's queer, a parlor socialist, you know, one who should not be in our schools. Then he's had trouble with his P-T organizations and you know a man in this position must keep in with everybody. I hated, though, to vote against him."

"I'm glad to know," said Kepner, "there's nothing the matter with the schools. In the Men's Socio-economics Club, of which I am a member, Dugan is recognized as the best thinker in it. During the flu epidemic he worked day and night. He went alone from the hospital and cared for Samson, recently paroled from the penitentiary, and the family when Samson, the grandmother and two children died within 36 hours. He is as good a neighbor as we ever had."

In three days after Dugan's dismissal a reaction had set in. Citizens' meetings protesting the action of the board had been held at the Dewey and at the high school and one was scheduled for the Washington, Monday evening. T. O. Grigsby, newly elected member of the board, and a man very active during the war, was "through with the public," according to the *Times* and had resigned. Many rumors were afloat: one that the entire board would resign, that McMillan would be petitioned not to accept, that Mrs. Christman would be appointed to the vacancy made by Grigsby and one that Dugan had bought an interest in a hardware store and would be appointed to fill the vacancy on the board.

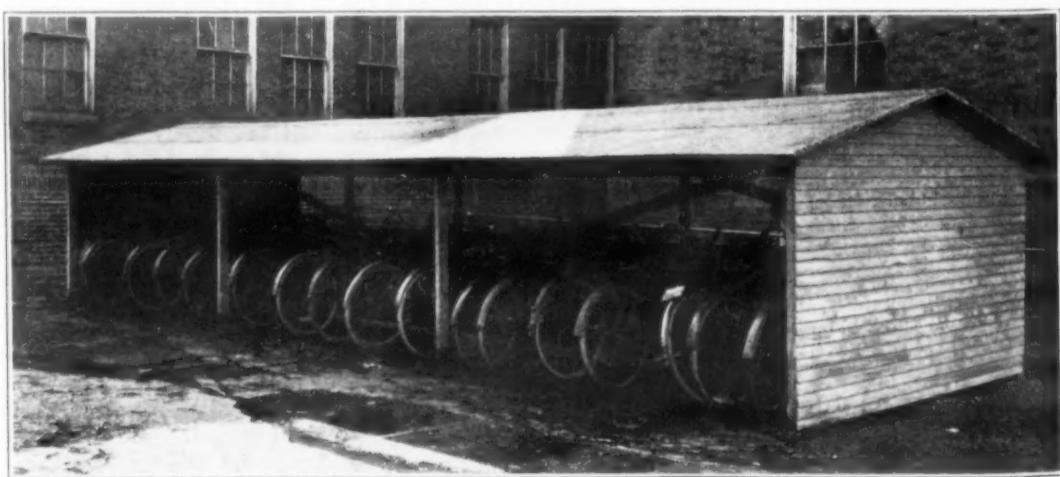
Then Monday evening came. Ringing protests had been adopted at the former meetings and there was no doubt about the sentiment in this ward. L. T. Childs, of the Childs Mercantile Co., a man who seldom attended such meetings, and A. T. Watson, a former resident, for years an influential citizen in the metropolis of the state, were present.

There was a free discussion, yet all was mild compared with the other meetings. G. M. Patterson, board member, spoke briefly, explaining that the board had intended to reflect public opinion but he had to admit "Some one had blundered." A protest copied from the one at the high school was adopted and the meeting apparently ready to adjourn when Mr. Watson was called on to speak.

He told them it was a pleasure to return again, that he had not been in this building for perhaps 25 years, yet in the room across the hall he had attended school for the first time, that he had graduated in the second class from the high school after a four-year course was organized, that in recent years, with two nieces in the high school, his interests had somewhat revived.

"Now as to your meeting this evening," he continued, "I can perhaps present a solution satisfactory to some. Mr. Dugan is well known over the state. I have heard him speak on various occasions. I was present when he spoke several months ago before the Club. At a recent meeting of the school board of which I am a member, Mr. Dugan and his qualifications were discussed on the request of our Supt. X_____. As a result less than an hour ago he agreed to become our assistant superintendent, beginning July 1st with a salary beyond the capacity of this city to pay."

The Versailles treaty with its carving out of new governmental units, and rearranging of border lines, is costing the schools of this country some money. Texas alone finds that the cost of new geographies for that state will run up to several thousand dollars.



BICYCLE RACK, GREENVILLE, PA.

In many of our high schools, especially when a large number of the boys ride bicycles to and from school, there is not ample room provided for the proper care and protection of the many bicycles. The accompanying drawings show how the situation was met at the Penn High School, Greenville, Pa.

During fair and suitable weather, the average number of bicycles to be taken care of daily is about seventy-five. The bicycle garage was built by the sophomore boys under the direction of the woodwork instructor. The approximate cost, including lumber, roofing, nails and painting was \$67.—L. W. Kunkle.



A BIT OF THE CAMPUS AND STREET, NORTHERN ILLINOIS STATE NORMAL SCHOOL, DE KALB, ILL.

“Beautifying Village School Grounds”

Frank K. Balthis, De Kalb, Illinois.

It is obvious that the beautification of any plot of ground, whether it be large or small furnishes increased pleasure to everyone who is fortunate enough to have access to it. This is especially true of public grounds if they are located centrally, or within the reach of the great mass of people. All cities now have some kind of a park or breathing place for the enjoyment of those who would otherwise lack the opportunity of observing nature, as it is represented by trees, shrubs, flowers, broad stretches of greensward, and playground facilities. The great cities of our country expend millions of dollars annually for park purposes; one has only to make a pilgrimage to a city park to learn how extensively it is utilized.

The small city or village is not always financially able to acquire land for park purposes, or even for a small breathing place. There should, however, be some way by which the villagers can enjoy the privilege. And what more logical place is there than the school ground? Where is a better place for community gatherings, and where should the highest ideals of our commonwealth be better exemplified if not on the school ground? The utilization of the school ground by the public brings the people in closer contact with the school—it is educational, and education is a prime requisite for good citizenship.

Selection of Site Important.

The site is all important from the standpoint of beauty and accessibility. It should be in a place convenient for the greatest number. Many village schools are located on the same ground they have occupied since the village was a hamlet. No change has taken place within the knowledge of the first pupil. With few exceptions the grounds are very small; in fact, to the interested observer it would appear that the building had been crowded into the smallest available space. The time has come when these conditions must give way to the trend of modern demands. The selection of a site is of paramount importance and should not be left for incompetent persons to decide. An expert who is trained in city planning should be engaged to locate the building in its relation to the village at large.

The size of the ground area must be carefully considered from both a utilitarian and esthetic standpoint. If the number of pupils in attendance is small the grounds will be sufficient for their needs, but if they are to be utilized

as a community project the area will be proportionately large. Sufficient space must be available for those outdoor sports which appeal to young people—baseball, football, tennis, volleyball, and a swimming pool for all. How many, many times are these facilities for play considered as too expensive when, in fact, the monetary consideration is infinitely small compared to the benefits derived. True, it is not to be expected that villages can compete with the large cities in playground apparatus but all needs can be provided without undue economy.

Value to Adults and Children.

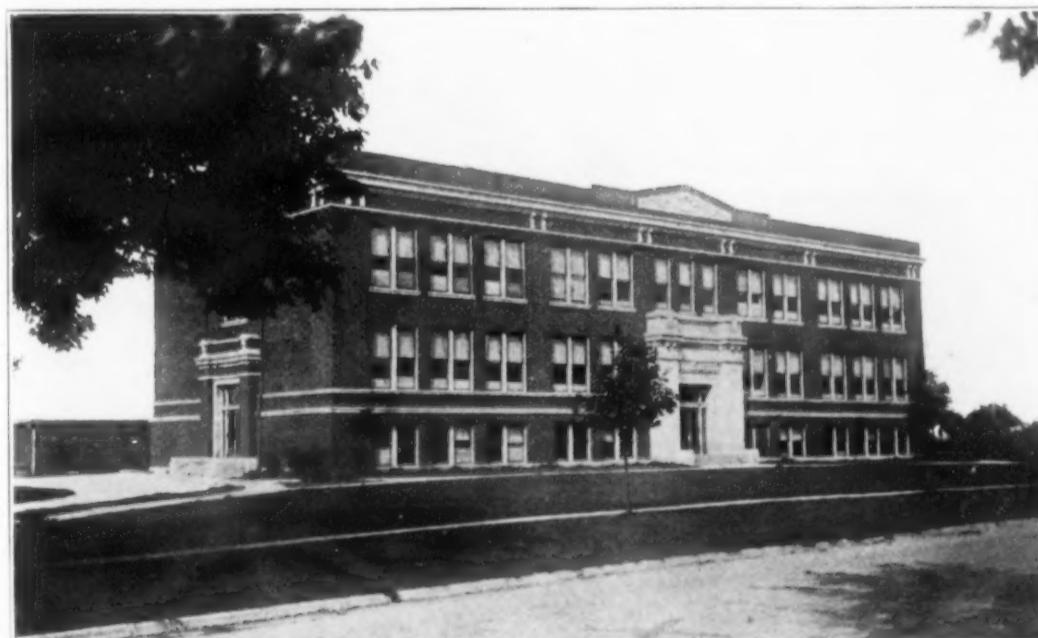
The more attractive the grounds the more attention and use the children will give them, and if they can be used as a park or square they represent an ever present object lesson for the whole community. Any thinking person can readily visualize the effect of a well planned, well planted, well maintained school ground in a village—the value lies in bringing home to everyone the fact that beautiful surroundings are conducive to contentment, happiness, and peace. One may not consciously recognize the value in these terms, but nevertheless it is instilled within his heart and he will not forget.

Shade and green grass alone are synonymous with rest and pleasure to the worker after a day of toil.

It is essential that children should have plenty of air and sunlight and room for active games and running about. Much has been said and written within the last few years about our duty to the “rising generation,” but we owe something to the present generation. And if, by any means, we can improve our conditions in life by making our surroundings more pleasant, why not do so? The improvement of the school ground is one means of accomplishing this end.

Walks and Planting.

Walks and drives are absolutely essential on all school grounds and should be laid out so that students and pedestrians may go to and fro by the most direct route. If they are not laid out in this manner the grass will be worn out irrespective of walks. In this instance utility is paramount. Walks that wander in aimless fashion are soon straightened out according to their accessibility between buildings. It is necessary to consider the number of people using them and the amount of traffic that must



MODERN HIGH SCHOOL BUILDING AND GROUNDS IN A CITY OF 3,000 INHABITANTS.

The athletic field is in the rear of the building. Very little planting has been done but, owing to the low windows, the only available place for shrubs is at the corners, in the angles of the walks, and on either side of the entrance. A low hedge along the front would look well. Japanese Barberry, kept low, with its brilliant autumn coloring and bright fruits, is desirable. Privet is excellent for a trimmed hedge but more labor is necessary for its maintenance.



A MODERN RURAL SCHOOL BUILDING AND GROUNDS.

The building faces south—an ideal arrangement for maintaining a large lawn with borders of shrubbery, flowers and trees. Note the unkempt lawn and lack of care.

pass in opposite directions. This will largely determine the width of the walks, and if the widths are not sufficient the student body will soon correct them by cutting other paths on the most direct route.

The planting will necessarily be utilitarian; it will be a border of shrubs alone, or trees, shrubs, vines and perennials along the fence lines, and possibly plantations to separate the boys' and girls' playgrounds. The planting should be as educational as it is useful for shade, beauty, and shelter. Every brick or stone building should have Boston or Engelmann's ivy at the base to soften the harsh lines; it is not always desirable to have the building entirely covered with vines because, in many instances, the beauty of the architecture is heightened if the walls are left exposed in places.

Too often the school building and its environs present an appearance of bareness, when they should be an asset to the community in an esthetic way. The available place for planting is at the entrances and at the base of the building—foundation planting. If the grounds are large and sufficient space is available the plantations may be six or eight inches from the foundation and practically the same effect obtained; planting in this way permits the maximum of light for the windows and the free admittance of air. The playground should not be shaded as the children require sunlight during



A VILLAGE SCHOOL GROUND AND BUILDING.

Heavy masses of soft maples are planted along both sides of the ground area, giving a too dense shade. More land should be added to have sufficient space for athletic purposes. An excellent place for community enthusiasm.

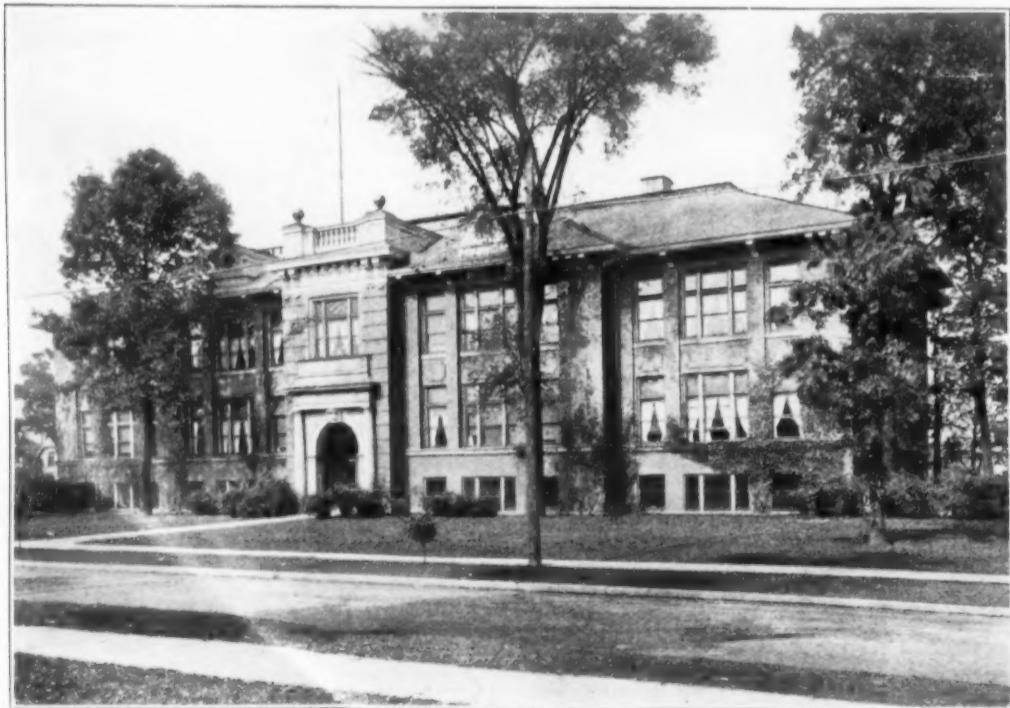
play. Trees should, however, be planted along the sides to serve as a background and to furnish shade; seats may be erected beneath the trees.

Kentucky blue grass. The sowing of timothy, oats and other nurse crops, is not good practice because of their tufting habit. In times of drought thorough watering is necessary; sprinkling occasionally does very little good because the roots are deep growing and water must be copiously supplied.

Circular flower beds in stretches of greenward are out of place—the greenward is always preferable. The place for flowers is in front of the border planting where they appear as a part of the plan and are in harmony with the surroundings. Highly colored flowers, such as the salvia, geranium, canna and kindred plants are so gorgeous that they immediately attract the eye when they should be only an incident in the picture. Perennial flowering plants are better than annuals because they do not require replacing each year. It is difficult to arrange flowers for harmonious effect and their planting must be carefully considered, otherwise discord will result and the beauty of the lawn will be reduced many fold.

Trees Essential for Beauty.

Trees are essential in the scheme of beautification. They furnish the background for the buildings, provide shade during the hot summer days, and shelter during the bleak days of winter. Trees, however, cannot be expected to do well unless they are properly planted and spaced sufficiently to prevent crowding, and unless varieties are chosen that will be adaptable



A SCHOOL GROUND IN DETROIT, MICH.



THE GOVERNMENT SCHOOL, QUINCY POINT, MASS., AND THE BEGINNINGS OF AN INTERESTING PLANTING SCHEME.

for the situation intended. Too many times are trees purchased because they are "cheap" when the cost should be rated according to their quality. A good tree is well rooted, compact, fibrous; it has a well branched head or top, the stem is straight and not broken up into crotches that can only mean disaster later on. The kind to plant should consist of native varieties, such as the pine, red and scarlet oak, the elm, linden, hickory, hard maple, and Norway maple. Nut trees, the hickory, walnut, butternut can well be placed on the school ground.

It is wise to purchase trees from a nursery because they are usually well shaped, root pruned and transplanted several times. The better way is to go to the nursery and make a selection—they may cost more, but the best trees can be obtained—trees of uniform size. A three inch tree—measured about one foot above the ground—is an excellent size for general planting. Larger sizes are more expensive and unless great care is exercised in planting, they are more difficult to establish. The nurseryman prepares the shipment by wrapping the trees in burlap, or in a box, with the roots packed in a coarse material, such as strawy manure, to retain the moisture until it reaches its destination. As soon as the shipment has arrived, the bale should be opened, the trees removed, heeled in in the garden, and thoroughly soaked to revive them. If the holes have not been dug, heeling in will keep the plants in good condition until digging can be completed.

Planting Rules.

Several rules may be laid down for planting a tree:

1. The holes should be large enough to easily accommodate the roots without crowding.
2. All good soil taken from the hole should be placed to one side; if the soil is poor it should be replaced and convenient for planting.
3. The roots of the tree should be carefully examined and all broken or mutilated parts cut back to sound wood. The cut should be cleanly made, not chopped or hacked with an axe. A saw is better if large roots are encountered. A jagged root takes longer to heal than one that is cut smooth.
4. The top or head should be trimmed or pruned sufficiently to place the plant in balance.

It is obvious that a heavy head with a poor root system throws the plant out of balance as too much leafage cannot receive sufficient food and water to maintain it in growth for any length of time. An elm should be pruned by cutting about one-third of the previous year's growth—it reduces the amount of transpiration. The better the root system the less top pruning will be necessary.

5. Two men are better than one when planting—one to hold the tree, the other to shovel in the soil.

6. Place the tree in the center of the hole, spread out the roots in a natural manner. Do not plant too deep—plant an inch or two deeper than the tree stood in the nursery which is easily determined by observing the soil adhering to the stem.

7. Place the soil around the roots, compacting it firmly in and between them. It is important that the soil be firmly tamped.

8. When the hole is about half filled with soil it should be watered, if a hose is not accessible it should be hauled in in a barrel, or carried by hand. Water compacts the soil and brings the roots in direct contact with it.

9. Stake to prevent loosening by the wind.

10. Keep the soil around the tree stirred by hoeing—it prevents too rapid evaporation, and keeps down weeds.

11. Water whenever necessary. It is important that young trees be given every opportunity to become established—drouth is one of the chief causes of trees dying when in a young state.

12. Keep in shape by cutting back all straggling growths and cross branches—cut out the poorest branch to prevent rubbing together. A tree with a crotch should be remedied by cutting out the poorest leader, the leader remaining, if it is crooked, may be straightened by tying to a stake. A crotch is likely to split during severe winds and cause serious damage.

(To be continued)

BOARDS OF EDUCATION AND CHAMBERS OF COMMERCE.

No American city is deemed wholly progressive unless it maintains a socalled chamber of commerce whose membership consists of business and professional men concerned in the economic, civic and social advancement of the

community. Such bodies aim to reflect the best impulse of the citizenship and to realize its higher aspirations and ambitions.

The concern which a collective citizenship, thus organized, manifests in all things making for a more prosperous and at the same time a better town, necessarily includes the schools. The wheels of industry must turn and the wants of trade must be busy if payroll and profit are to be produced. But, no town can continue to achieve payroll and profit unless the school continues its output of the rarest of all products—namely, that of useful citizenship.

This fact being duly recognized the average Chamber of Commerce assumes a cooperative attitude towards the schools. If the schools have exceptional needs depending upon an affirmative public opinion the chamber of commerce comes to the rescue. If the administration of the schools is lax and indifferent that body stands ready to come forward with timely criticism.

Thus, it has happened in recent years that where a board of education has become wedged into a combination of unfortunate local circumstances, and therefore, unable for the time being to command public support for laudable ends, the business body has been brought into service. Where the board of education was unable to crystallize public sentiment in behalf of desirable departures the chamber of commerce has usually been able to do so.

It is, of course, self-evident that where boards of education are well chosen, enjoying public confidence to the fullest, and maintaining a satisfactory school system, there is little need for chamber of commerce support or interference. But, even under favorable conditions school boards have sought the counsel and co-operation of the business and professional public, as exemplified in a local commerce body, in support of laudable ends.

One city in the midwest, for instance, found itself unable for years to rid the school system of an awkward system of penmanship, kept in use by a few theoretical pedagoges. It was the sledge hammer blow of the business men, initiated by the school board, that killed the fad and prompted the adoption of a practical system. A more recent instance is recalled where

(Concluded on Page 145)

Small Town School Administration and Supervision

Harvey D. Douglass.

Board Meetings.

The superintendent should attend all of the meetings of the board of education whether regular or special unless he does not know when a meeting is to be held, or when he is not wanted. There are a few occasions when it is not advisable for the superintendent to be at the meeting of the board. In the small school system there are many items of business management considered when the superintendent will not need to be present.

In some of the larger systems those functions are sometimes divided between two officials. However, there cannot be many policies of the board which are not to be known to the superintendent if the system is to function properly. The proper place for the adjustment of these things is at the meeting with the board and not in the place of business of one member of the board, on the street, or in the office of the superintendent.

All business brought up in a meeting of the board, except such parts as are made known to the public, should be kept to the members of the board and to the superintendent. Little differences of opinion will develop which should be *settled* in the meeting and the results and differences, however slight they may be, should *not* be carried outside. The broadcasting of this information will not work to the efficiency of the school system and that is what the superintendent and the board are in these meetings for.

In these meetings the superintendent should bring up any matters of business policy which must pass the approval of the board. He should make a report of conditions as he has diagnosed them and his proposals for a remedy. In the early part of his régime he will need to bring many things to the attention of the board which he will not be required to do later on. If he shows a master's hand, he will come more and more into the confidence of the board and be allowed greater freedom.

He will need to make report of progress of such policies as he has instituted as the time goes on. He will report the need for new equipment and the needs of the school in general. In short, the board meeting is a general clearing house for the school.

Connection With the Finances.

Soon after the superintendent has become located in his new position he should start to study the financial condition. He is responsible for much of the expenditure that takes place. Because of this he should make himself familiar with the situation that the finances may function to the best advantage.

He should know the valuation of the district and whether it is assessed below what it should be, that is, below or above other property in like circumstances. Sooner or later he will be called upon to give an account of his stewardship. He will be held to answer for what will be termed a very expensive institution. He must know if such is the case, and if so, endeavor to eliminate needless expenditure. He will need to know if the community is being taxed to the breaking point. Because of this he will need to know the tax rate and how it compares to like situations in other parts of the state. He will need to know the valuation per pupil because the finances of operating a school resolve themselves to that as a finality.

He should know the items of the school budget. He should be informed approximately what part of the whole each item should be. It is only in this way that he may know where

expenditures may be cut down, and if there be any need. A budget should be made and the board taught to make their expenditures come to the budget. The tendency to reduce expenses is generally along the line of equipment necessary to operate a school efficiently, or in lowering the salaries. Both of these affect the pupil directly.

Usually a little investigation will show where money is being wasted indiscriminately on other items with little or no returns to show for it. It may be shown that the work of the school, as far as the pupil is concerned, lies with the teacher and the equipment. Any attempt to give less value in this direction lowers the efficiency of the school as the work of the school is operated primarily for the pupil that the state may perpetuate itself. It may be shown that the difference between a good equipment and a poor equipment, or between a good teaching corps and a poor one will affect the tax rate by less than one-half of one per cent. This will be the difference between expert service and mediocrity.

The superintendent should see that all supplies are conserved and that they are used as economically as possible. He should understand that a dollar of school money is worth as much as a dollar in any other business and should govern himself accordingly.

The superintendent should be vitally interested in the finances of the school district and should keep a check upon them.

The Credit System.

In some of the school systems there is an antiquated system of credits, and sad to say, in some of them there is no system at all.

In either case the superintendent should get a good one installed. The measure of the work of the schools depends to a great extent upon the character of the records it keeps and also upon the attention the school gives the students after they leave. The measure of the work of the pupil in school is dependent upon the records left on file when the college or the world outside of the school wish to know.

It does not any longer suffice to mark down a percentage to a certain subject. The item should indicate for how long a time the course was pursued and the name of the author and the text. In many cases the name of the instructor or the teacher will be of assistance in tracing errors, for errors will occur. There should be items that tell the years when the credit was obtained, when the pupil left school and why, in case he did not graduate. Occupations and addresses after leaving school should also be given as far as possible. A great part of the work of the school is to keep track of those who have attended it.

A card system may be arranged which will tell all of this. On one side of the card the grade credits may be recorded and on the other side, the high school credits. The age of the pupil as well as the name and address of the parent or the guardian should be written. These cards may be filed in a double cabinet. They may be arranged by grades in one section

THE AMERICAN SPIRIT.

The American spirit is the spirit of democracy. However much we may fail in the doing, we all believe ardently in the government of the people, for the people, and by the people. This means that the people must not only love and trust their Government but they must understand how it works and they must be able and ready to pass judgment on the issues of life as they come up.
—Earl Barnes.

for the pupils who are in the school, and alphabetically in the other section for those who are no longer in school.

These should be kept in a vault where possible. Where it is not possible there should be a safe with the credits filed in a book. These will be a duplicate of the other marks on the cards of the card system. These cards should be guarded with jealous care, especially in a small high school.

When there is no safe and the authorities cannot be prevailed upon to get one, one set of the credits, the book, may be left in the hands of the Secretary of the Board of Education. It is tragedy when former pupils send to the non-accredited school, or to any school, and the credits are no longer to be found.

All of the items above recorded are of great advantage in making the studies which modern education requires. Nothing will enhance the efficiency of any school system with as little expense as a good credit system.

Course of Study.

In order that each teacher may know what the objectives are for each year of the work for the child there must be a course of study. Without a course of study each teacher is working as an individual and not as part of the whole system. The work contained in a course of study is too extended for any teacher or superintendent to expect to carry it in his head. It should be used in a sense as a measuring stick to determine when the objectives are reached. Approximately each year's work in any subject is as easily determined as a cord of wood or a ton of coal.

When a dealer delivers a cord of wood or a ton of coal he does not load what he has time to put on, and then after he has arrived at the place of delivery, throw off as much as the time will permit without any idea as to when he has delivered the required amount. It is just as essential that a teacher in a public school system should have a measure to tell what the objectives are. They may be told approximately and there need be no guess work as to what they are. Educational experts have decided upon what they should be.

The course of study may be a mere list of the subjects of the work for each year or section when it contains only the subjects of the curriculum. It may be a more extended outline until it is extended so far that it becomes a syllabus. The more extended the outline becomes, the more nearly it becomes an accurate measure and a teaching device.

The course should be outlined in the larger or the general terms for each subject. There should be a unity in the course following through the grades and the high school. It may go into detail to the extent that may be necessary according to the training or to the lack of training of the members of the faculty. By it each teacher will know what the pupil has had the preceding year, what is to be done in the year in which the child is working, and what is expected will be done in the succeeding year. Then the pupil and the teacher may be measured according to the work that is demanded, and the supervisor will have the right to expect that it will be done and hold the teacher responsible for results. It is part of the work of the supervisor to measure these results.

Incident to this work is the measurement of teachers.

Measuring the Results of Teaching.

Modern education has reached the point of asking workers in the educational system to

measure the product of their work. This has been done for some years. We have had surveys to learn what the schools were accomplishing. For many years we have had the old fashioned examination to measure the results of the work of the teacher. We have not always judged the system by the results obtained on examination. We have judged the system and the teachers by the number of pupils that passed the grade or failed.

One serious defect of the old time examination was that there was no agreement as to what we were trying to measure. Neither was there any agreement as to the standard of the measure. Some gave no tests at all, claiming that they could tell who would and who would not pass. When such people gave tests they were satisfied that they knew what would happen. The majority of them were so satisfied with their own judgment that the results apparently confirmed their judgment.

One method was to give ten examination questions, more or less broad, and assign the value of 10 per cent to each one. It has never been determined just how they chose ten questions of equal value. They did not consider that the ten could not be of equal value unless they were the same, in which case there would be no need of assigning ten different ones as they would all answer the same questions or topics. Another method was to assign different values to different questions or topics. One would be given the value of five (5), and the next one assigned the value of fifteen (15) or twenty (20). Neither did it occur to these examiners that there was no reason why one question should be worth three or four times as much as another. This has been proven from the fact that different people assign entirely different values to these same questions.

Those who give no examinations and claim that they can tell who should or should not pass cannot tell the rank of the different members of the class. The rank of the individual must be determined if the system is to function to capacity in the life of the individual. We are all ranked and classified when we work for the world. School is part of the world and the members of the school should be assigned their various ranks. Also when no tests are given, a little study proves that *all* have been passing, if they remained in the grade during the year; the good, the poor, and the indifferent.

The test is conceded to be the best means we have at present of evaluating the work of the

individual. There are some standard tests and measurements which have been determined by experts in intensive as well as extensive studies. These tests indicate what a pupil should know about a certain subject or phase of it. The scores that should be assigned have also been determined by extensive studies. If the instructions are followed the instructor cannot go far astray. Even though the studies indicated, are in their infancy, the measures are the most accurate that we have at present and they are growing in their scope. They clearly indicate when an answer is to be marked right or wrong and how much to rate it. They are at least uniform when used by different teachers *if the directions are followed*.

Then when a pupil passes from one grade to another or from one teacher to another there is no disagreement as to whether that pupil should be in that grade. Neither is there any disagreement as to ability of the pupil to do the work because the teachers both ask the same thing about the same thing. In other words, they have the same standard. This is more than can be said of the old system of testing. A single paper has been given to specialists in geometry which is one of the so-called *accurate* subjects. One hundred specialists have varied all the way from 15 per cent to 85 per cent in their judgment as to what the same paper should be marked.

This has been proven a great many times by means of studies when those who marked the paper did not know why they were doing it. In some of the other standard subjects there has been greater variation in marking than in the above named instance. By the old method the marks of the same teacher have been found to vary greatly at different times in marking the same thing, when only haphazard methods of judgment are applied.

When the teacher has no standard of measure of the subject or section in which the test is to be made, papers may be marked according to the degree of difficulty to the pupils. That is, if five pupils miss one question and only one pupil misses another, count off five times as much for the first one missed as for the second one. The one is five times as difficult to the pupils as the other.

To the pupils who answer the above, this system will allow five times as much credit for the first as for the second. It will be held by some that those who miss none, will have no counts, but a little study will prove that they do. It will also be argued that there will be

cases in which none will be missed. But in any class of any size the questions will all be missed by the different pupils. If none are missed, the subject is presented in too easy a manner or the test is not difficult enough.

If all the pupils miss a certain question it should be struck from the list as it is evident that the material to which it refers has not been taught. The teacher and not the pupils should be held accountable for this. But if the subject is presented as it should be and in the right year of the curriculum there will be misses enough to give a basis for determining the standings on the test.

Total the marks counted off and it will give the highest possible standing on the test. That is, if two miss the first, three the second, one the third, and five the fourth, and so on, total these counts. If there are odd fractions due to parts of questions being missed they may be reduced to common denominator, or to like fractions, and the numerators taken for the counts. Then they will all be in the same denomination. No matter if the total runs into hundreds, as it sometimes will, they are all marked on the same basis. Deduct all missed.

Then the several marks of the pupils may be arranged in order, from the lowest to the highest and the marks of the school applied to them in divisions. They may be arranged into sections according to the curve of probability, as they will be, or they may be divided and letters or percentages applied to them. The system takes a little time but it gets results and that is what we are after. The system will also rank or grade each individual where he belongs.

Of course the question and the answer are still left to the individual judgment. But if there is a good course of study and the questions are what they should be, which will be the case if the teacher knows her business, there will be no difficulty. The system is not difficult to explain to the teachers or to the pupils. Some teachers are "wedded" to the old system, and some of the pupils who want to bluff their way through, will not see the method, but nearly every teacher and pupil will concede that it is a better way of marking, when it is explained to them. The only point to concede is that the marks on the questions be placed according to the degree of difficulty to the pupils as shown by their responses.

Note: This is the third of a series of common sense articles on the problems of the small school system by Harvey D. Douglass, superintendent of the New Odessa, Michigan, schools. The fourth and last of the series will appear in the June number.—Editor.

Heating and Ventilation in the Schools of Germany

F. Perry (Stadtbaudirektor), Commissioner of Public Buildings, Mannheim, Germany

The active development of schoolhouse construction in Germany before the war not only contemplated a due regard for the artistic, so far as interior and exterior design was concerned, but also aimed to observe the practical in orientation and equipment. This was amply demonstrated in my two previous articles which appeared in the SCHOOL BOARD JOURNAL. Also, the technical considerations in buildings housing many people daily, the most important of which may be designated as heating and ventilation, have been developed with reasonable completeness.

Where the Old Time Stove Serves.

In the small schoolhouses in both country districts and in small towns, the use of stoves, notwithstanding their shortcomings, is still deemed the most simple and practical. In

these buildings it does not pay to install central heating systems. Besides, the means are frequently lacking to engage in the purchase of expensive systems.

In such cases an iron stove, properly jacketed, is installed in keeping with the size of the room and the number of pupils to be served. The difficulties, however, encountered here are several. The lack of an even distribution of the heat, proximity of the pupil as well as extreme distance from the same to the stove may cause uncomfortable temperature extremes. To minimize this evil, double jackets with fresh air ducts have in instances been introduced.

The objections that have been urged against stove heating are: Handling of fuel and the removal of ashes; the causing of dirty floors; and the disturbance caused during classroom hours by janitors.

If the janitor attends to the stove before the class goes into session the rooms are likely to become too warm, with the result that the teachers open windows and thus cause a waste of fuel.

The only claim that can be made for stove heating is its cheapness as compared with a central heating system and the fact that a stove consumes much of the vitiated air of a schoolroom. The air thus drawn out of the room is replaced by the fresh air which comes through the loosely adjusted doors and windows.

A further disadvantage, according to our experience, is found in the fact that stoves cannot be placed next to windows, where the air is coolest, but must be placed somewhere near the chimney, thus overheating a part of the room and leaving other parts below the required temperature.

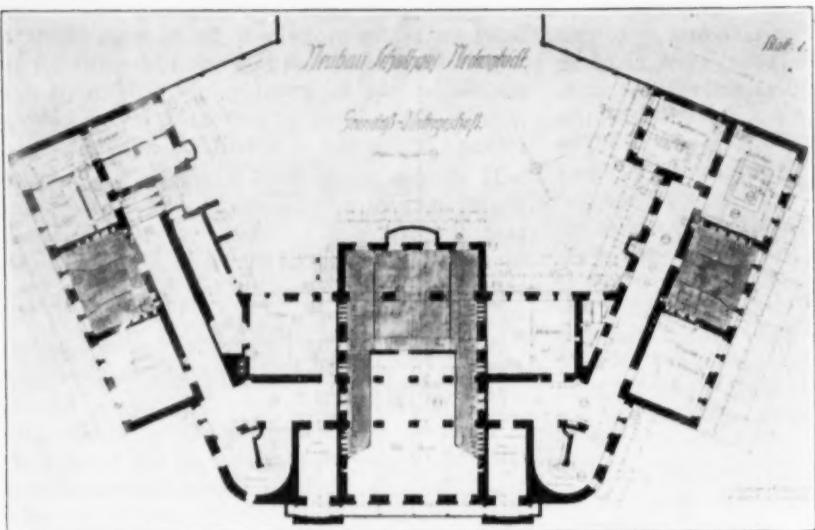


PLATE 1—BASEMENT FLOOR PLAN OF A NEW SCHOOLHOUSE AT MANNHEIM, GERMANY. THE SHADED SPACES CONTAIN THE HEATING AND VENTILATING CHAMBERS AND THE ADJOINING PARTITION WALLS THE DUCTS.

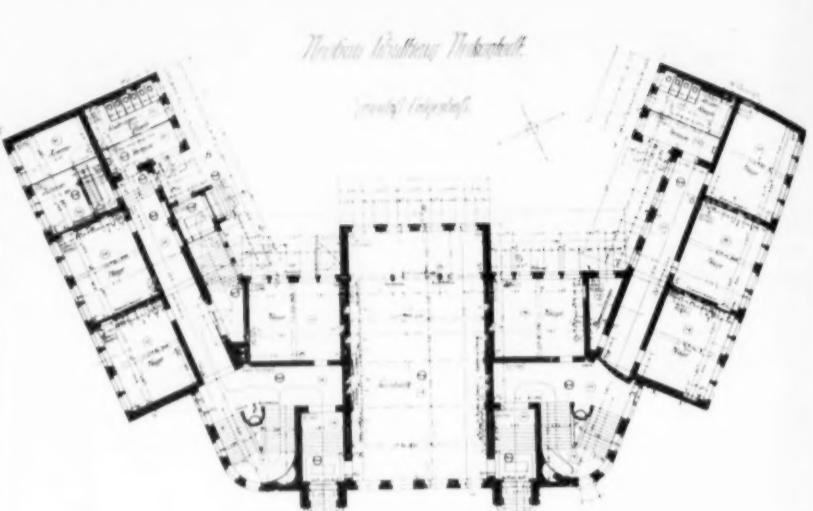


PLATE 2—FIRST FLOOR PLAN OF NEW SCHOOLHOUSE IN MANNHEIM, GERMANY, SHOWING THE PLACING OF VERTICAL AIR DUCTS IN THE PARTITION WALLS BETWEEN THE CLASSROOMS.

Central Heating Systems.

In the larger communities all new school buildings, with but few exceptions, are equipped with, what we term, modern heating systems. In the older buildings some antiquated systems, no longer recognized as being efficient, may be found.

In the new buildings steam pressure heating systems are installed. The hot water systems are less popular here because they entail a higher installation cost of at least 25 per cent. Besides, the hot water systems are deemed undesirable because the water in the pipes and radiators is subject to freezing when buildings are not in use during extreme cold weather and the janitor has forgotten to tap the water, or to close a window. In other respects there is no essential difference between steam and hot water plants.

In view of the more general acceptance of the steam pressure system in the German schools, I shall deal more explicitly with them. The advantage of a central heating system, we believe, is found in the ready conveyance and use of fuel and the removal of ashes and cinders, their general convenience and cleanliness. Besides, a central heating plant affords better control and therefore deemed more economical from the standpoint of man service and fuel consumption. If any disadvantage could be urged it would be the high cost of installation.

The installation of a central heating system is, of course, here as elsewhere subject to the general arrangement of the structure. The boilers are placed in the basement, and as near the center of the same as possible, from whence the steam heat is distributed through radiators placed in corridors and window walls in classrooms.

The drainage of condensed steam is made possible, as this is done in the heating systems

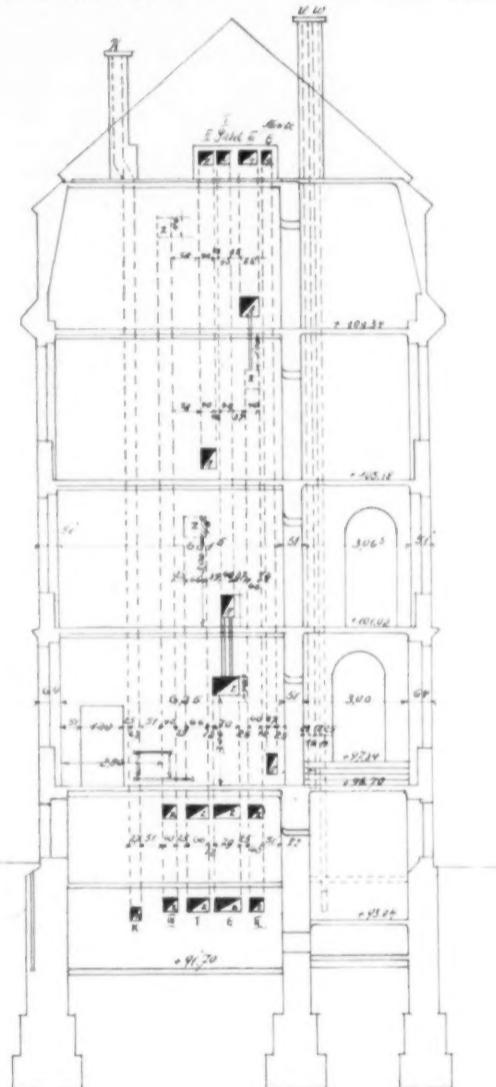


PLATE 4—SECTIONAL PLAN SHOWING THE PLACING OF THE VERTICAL AIR DUCTS TOGETHER WITH THE CLASSROOM VENTS AND EXHAUST OPENINGS IN THE ATTIC.

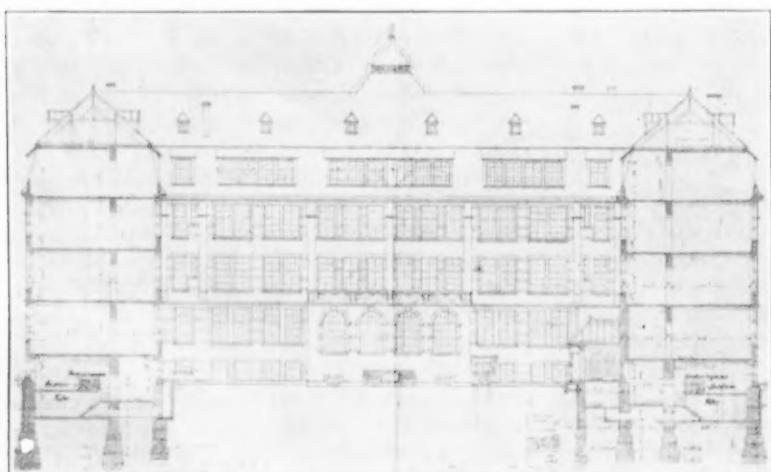


PLATE 3—SECTIONAL PLAN OF NEW SCHOOLHOUSE IN MANNHEIM, GERMANY, SHOWING THE PLACING OF AIR WASHER "FILTER" AND OF THE WARM AIR CHAMBER.

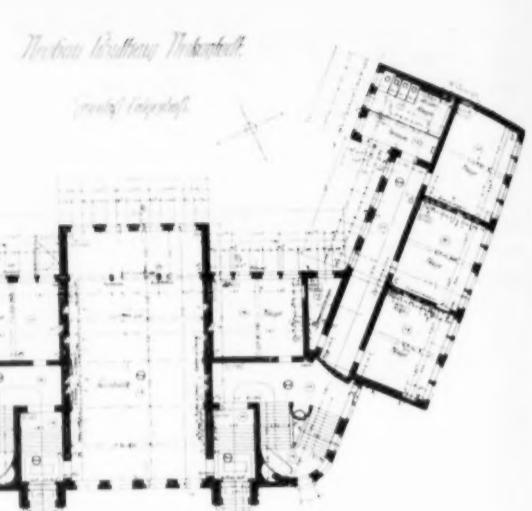


PLATE 5—EXTERIOR VIEW OF A NEW PUBLIC SCHOOL AT MANNHEIM, GERMANY.

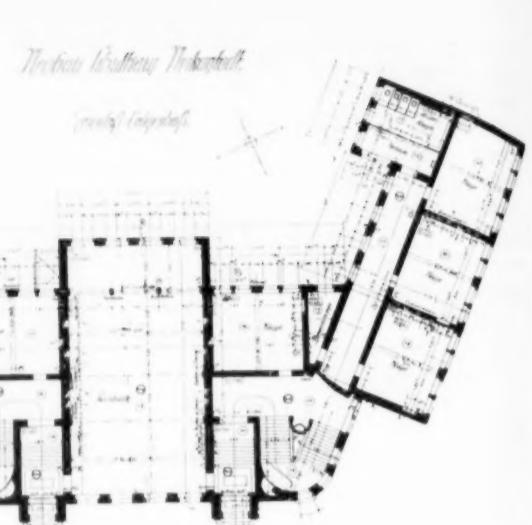


PLATE 6—EXTERIOR VIEW OF A NEW PUBLIC SCHOOL AT MANNHEIM, GERMANY.

installed in the American school. The piping is exposed, simple in construction and direction, and thus readily subject to repair by janitors having no technical knowledge of the intricacies of a heating system. Because non-technical janitors rather than engineers are employed it has become customary to avoid complicated mechanisms such as temperature regulators, thermostats and the like.

Every room is supplied with a plain thermometer which the janitor is told to inspect periodically, regulating the use of fuel accordingly. The janitor cannot be trusted, as experience has demonstrated, with the care of delicate instruments or complicated devices. Hence, these are not generally installed.

Attention Given to Ventilation.

A system of ventilation must necessarily become a part of the heating system. But, here simplicity in construction becomes an important factor. Many different ventilating systems have been worked out, and while they have been deemed serviceable in theory they have failed in practice.

Occasionally an inventor has succeeded in devising a system which can be operated automatically and which takes into account the fact that ventilation implies the introduction of fresh air. Many varieties of ventilating systems have been installed and yet but few have been found practical. Perhaps, all these systems could be operated more efficiently, if experienced engineers or janitors with technical knowledge could be employed. But, since this is not the case the systems of ventilation are found mainly in the larger school buildings where engineers and mechanics with technical knowledge can be employed.

A more simple and effective theory in ventilation is the one which relies upon the differences of an indoor and outdoor temperature.

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Inasr ventilat newer serve o floor pl four el ranged building ducts a air fro zigzag chamber tened a run thr that th

Plat inlets a Plate 3 washer deals w the wal are cl erated exteri

The warm air being lighter than the cold air, it rises in vertical flues. This fact is utilized as follows:

A series of air chambers are provided in the basement. These consist of fresh air and warm air chambers. The first draws the outdoor air and passes it through the hot air chambers. Between the two, suitable air washers are supplied, which cleanse the air from dust and street germs. The warm air ducts are connected with the heating system, thus warming the air before it goes into the classrooms, but providing it with a degree of moisture as well. From the fresh air ducts, through the washers, thence into the air warmers, the air is sent through the vertical ducts into the classrooms.

The openings to the air ducts in the classrooms are placed a few feet above the floor and covered with wire screens. The air ducts extend to the attic where trap doors are supplied which may be manipulated by suspended wire running to the basement.

Through this arrangement the janitor controls in the basement the opening and closing of all the air ducts. This is deemed necessary, especially in extreme cold weather, because experience has proven that teachers do not always exercise good judgment in the matter of ventilation. Besides, pupils must be prevented from tampering with the air ducts.

This system of ventilation has the further advantage in that it involves no extra cost in operation. It is easily controlled by those in charge of the furnace firing, economical in installation, and serviceable in both summer and winter months. While in pleasant seasons of the year it is the rule to open the windows during the recess hour, this rule is not always observed because the janitor finds it a difficult task to open and close hundreds of windows within a brief period.

Again, if the windows were opened during recess the foul air would soon accumulate again to be breathed by teacher and pupil. The ventilating system obviates this. Naturally the heating system is not operated when the outdoor air is reasonably temperate.

Notwithstanding this fact experience has taught that the outdoor air cools during the night, and the difference between the indoor and outdoor temperature is sufficient to cause an air suction in the ducts. Usually in the morning it is found that the classrooms are filled with fresh air, thus demonstrating the utility of the ventilating system even during the summer months. The opening of windows and transoms is quite generally resorted to during the milder months of the year.

Describing the Plans of Installation.

Inasmuch as the installation of heating and ventilating system is quite uniform in the newer types of building, a few examples may serve our purpose. Plate 1 shows a basement floor plan of a school building having thirty-four classrooms. The air chambers are so arranged that three of these may serve the entire building. The plan shows that the fresh air ducts are placed near the window and that the air from here, after being filtered through the zigzaggy air washer, is passed to the warm air chamber. Here the air is warmed and moistened and conveyed to the vertical ducts which run through the building. Owing to the fact that there are no turns or bends in the ducts they are easily kept clean.

Plate 2 shows a basement plan and how the inlets and outlets to the air ducts are arranged. Plate 3 shows the arrangement of the air washer and the hot air chambers. Plate 4 deals with adjustment of the vertical ducts to the wall, and shows how the outlets in the attic are closed by means of wire connection operated in the basement. Plate 5 presents an exterior view of the structure.

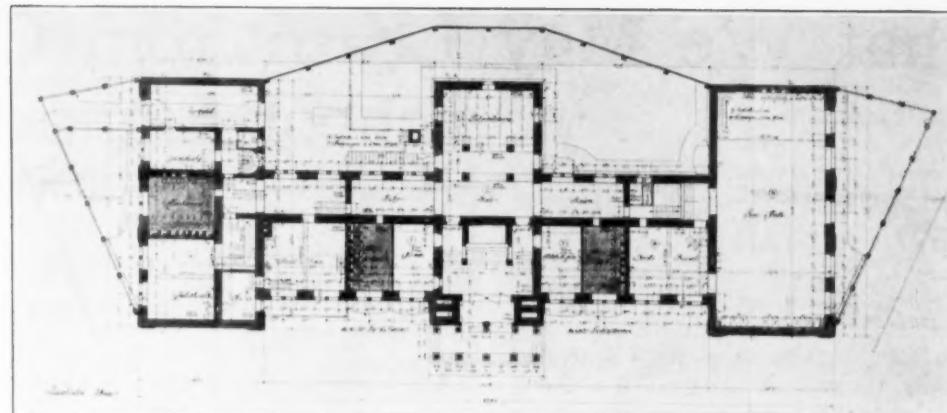


PLATE 6—BASEMENT PLAN OF NEW GIRLS' HIGH SCHOOL AT MANNHEIM, GERMANY, SHOWING THE LOCATION OF THREE WARM AIR CHAMBERS MARKED "HEIZKAMMER." THE FRESH AIR INLETS ARE PLACED UNDER THE WARM AIR CHAMBERS.

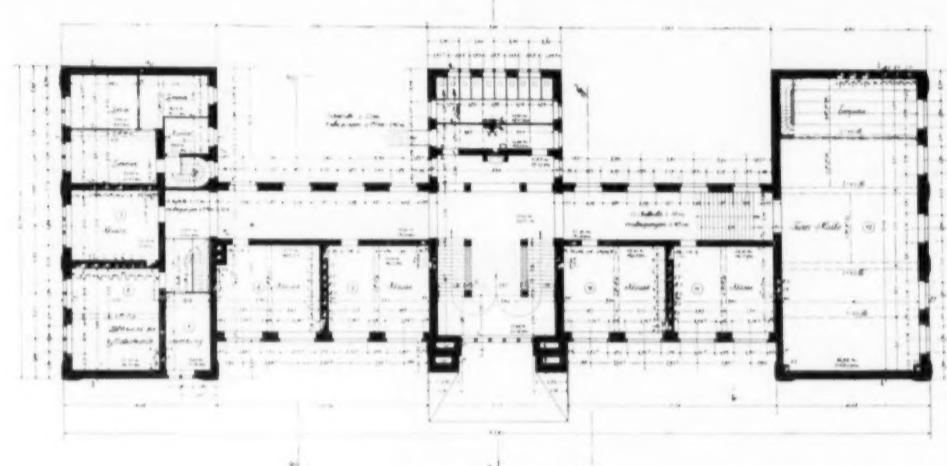


PLATE 7—FIRST FLOOR PLAN OF NEW GIRLS' HIGH SCHOOL AT MANNHEIM, GERMANY.



PLATE 8—EXTERIOR VIEW OF NEW GIRLS' HIGH SCHOOL AT MANNHEIM, GERMANY.

A second example is afforded by Plate 6, which deals with a high school. Here three hot air chambers are provided in double tier form. The lower section represents the fresh air inlet and the air from here reaches the upper and is in the same manner cleansed and warmed and moistened as this is done in a former illustration. Plate 7 shows another basement floor plan, while Plate 8 presents an exterior view of the structure.

As already intimated, there are other systems of ventilation which might be described, but it would not add to information sought on the general subject of heating and ventilation, as exemplified in the modern schools of Germany. I have therefore confined my description to the simple and practical systems now in general use which have in reality provided the school-houses with sufficient fresh air, adequately cleansed and warmed.

THE NECESSITY OF TRAINING TEACHERS IN HEALTH WORK.

Dr. Hugh G. Rowell, New Bedford, Mass.

For the professional school health director no greater difficulty exists than the lack of understanding of health work by many teachers. This is not to be interpreted as a fault of the teachers, but rather of their training courses. A comparatively small number of a force of instructors has been shown more than a very few basic principles of medical work in a school, to say nothing of minor problems in school en-

gineering. Nor has any particular attempt been made to make such subjects attractive to teachers or to furnish them with a background for understanding what their real duty is in this type of work.

We must recognize that a teacher is far more than a machine which forces reading, writing, and arithmetic upon an unwilling group present under compulsion. Today the teacher is a vital force in making education desirable and not a task. And the teacher must recognize the many-sidedness of her work and remember that she should demand good working conditions for her pupils and above all be prepared to assist in keeping their health sufficiently good to enable them to make the most of their strictly academic work.

A knowledge of correct lighting is necessary and yet we will find cross-lighting effects in the room, particularly when artificial illumination is required of an afternoon, simply in many cases because the teacher has not been drilled in handling the window shades intelligently. Perhaps the necessity of urging glasses upon her pupils will be lessened when the teacher has been given adequate practical advice in such matters. Such duties may be for principals to attend to theoretically, but we find that principals can not possibly cover everything.

(Concluded on Page 149)

What We May Learn from California in Public School Finance¹

Fletcher Harper Swift, University of Minnesota.

Few states in the Union have as much to offer in the way of suggestion and example in the field of school finance as California. This is due largely to the fact that her educational policies have been moulded to no small degree by scientifically trained educators. The majority of our states continue today depending for the maintenance of their schools upon systems of finance long since outgrown and utterly incapable of meeting the present complex school situation. California, like Massachusetts, has shown herself not only sensitive to the inadequacy of policies which were sufficient twenty years ago, but willing to experiment with new policies and new methods. Largely as the outcome of expert leadership and of willingness to modify her policies, California occupies a leading position in the Union. The only attempt thus far made to assign relative educational ranks to our 48 states, ranks California third in the Union in 1890, second in 1910, and second in 1918. Whether these ranks assigned by Ayres be accepted or not, the fact remains that the educational public has long recognized that California is surpassed by few states in her liberal policy of school support and in the quality of her schools.

California Liberal to Her Schools.

One of the first lessons which we may learn from California is that in education, as in other stable enterprises, we get what we pay for. California ranks near the top of the educational scale because she ranks near the top of the scale with respect to the money she invests in education. Table I shows the five states ranked highest by Ayres in 1918, the expenditure per pupil of each of these states in 1918 and in 1920, and the investment per child in school property in 1920.

From Table I we see that only two of the five states ranked highest by Ayres in 1918 expended more money per pupil in average daily

	Size of Item	Rank in Union ⁴
A. CONDITIONS.		
I. Area in Square Miles		
1. Total gross	158,297	2
II. Population		
2. Density	22.0	32
3. Total	3,426,861	8
4. Per cent white	95.3	28
5. Per cent negro	1.1	32
6. Per cent foreign born white	19.9	10
7. Per cent rural	32.0	44
8. Per cent urban	68.0	5
9. School population, 5-18 years of age	679,119	18
10. Per cent of population of over 10 years which is illiterate	3.3	15
III. Estimated True Value of All Taxable Property of State		
11. Total	\$12,166,055,903.99	4
12. Per child enrolled	17,473.00	7
IV. Debt and Taxation		
13. Net debt per capita, 1921 (Among 30 States)	15.66	26
14. Ratio of net state debt to assessed valuation, 1921	1.49	42
B. SUPPORT.		
V. Annual Current Expenditures for Public Schools		
15. Total, exclusive of debt service	48,980,298	5
16. Per child enrolled	70.35	11
17. Total expenditure for schools on each \$1,000 of estimated taxable wealth (1,000) ²	4.02	25.5
VI. Value of Public School Property		
18. Total	\$110,997,295.00	6
19. Per child enrolled		7
C. RESULTS.		
20. Number of children of all ages enrolled	606,238	6
21. Per cent of children of school age (5-18) enrolled	102.5	1
22. Per cent of children enrolled in daily attendance	69.1	38
23. Per cent of children 16 and 17 years of age attending school	54.7	6
24. Average length of school year in days	174.0	12
25. Average annual salary of teachers ³	\$1,272.00	3

¹Includes all teachers, supervisors, and principals.

²Computed on the basis of Keith's estimates, see paragraph preceding Table 2.

for the year 1920 is presented in Table II, which attempts to show for that year:

1. The conditions with which the school system had to deal.
2. The financial support given by the state to the efforts of the schools.
3. The results of the interaction of 1 and 2, as seen in enrollment, attendance, length of school year, illiteracy and teachers' average wage.

Attention should be called to the fact that it has seemed inadvisable in the present account to attempt to indicate the source of each item presented in Table II. The data are taken

³Includes all teachers, supervisors, and principals. ⁴Ranks computed except in case of the first three items. For these three the ranks are taken directly from the Federal documents.

page 79). The data regarding net debts are taken from, *A National Survey of State Debts and Securities*, published by the Bank of America, New York City.

From Table II we see that in annual current expenditures for schools, California ranks fifth in the Union, which is two ranks higher than her rank in wealth per child enrolled. Further evidence that California is making a laudable effort to provide school revenue in proportion to her real wealth is presented by the fact that among the thirty states for which the Census Bureau secured data, California has one of the heaviest new debts per capita, ranking, in fact, twenty-sixth among the thirty. As to results, there are only two states in the Union which pay a higher average annual salary to teachers. Furthermore, California ranks first in the Union with respect to the percentage of children of school age whom she enrolls in school. We must not overlook the fact, however, that with respect to the per cent of children enrolled who are in average daily attendance California is surpassed by 37 of the states. Nevertheless we may say that, all in all, California ranks exceedingly high, both as to the effort she is making to provide school facilities and as to the results she is securing.

Distinct Funds for Distinct Projects.

A second lesson which we may learn from California is that which concerns the financing of public schools in terms of definite projects. The majority of our states establish a single budget for all types of public schools. If a new project is to be undertaken, there is rarely any definite provision for a new source of revenue. Worse still is the common custom of simply gathering together such sums as it proves possible to collect, distributing these proceeds among the schools and leaving the latter to provide school facilities as best they can. A frequent result of this custom is the necessity of pro rating state moneys among districts with the result that the districts can never tell in advance with any degree of accuracy how much assistance they can depend upon from the state.

In marked contrast to such blind policies, California insists that her schools shall be

TABLE I.

Ayres' Ranks ¹	Total Expenditure per Pupil in Average Daily Attendance for 1918 and Investment per Child Enrolled in 1920 for United States as a Whole, Montana, California, Arizona, New Jersey, and Washington.					
	Amount ²	Rank ³	Amount	Rank	Amount	Rank
United States	\$ 49	..	\$ 55	..	\$149	..
1. Montana	163	1	133	2	127	33
2. California	79	3	102	6	231	2
3. Arizona	85	5	135	1	159	24
4. New Jersey	71	5	86	15	216	4
5. Washington	78	4	98	9	209	7

¹L. P. Ayres, *An Index Number for State School System*.

²Bureau of Education Bulletin, 1920, No. 11, p. 148.

attendance, than did California. In this same year, California expended \$30 more per child in average daily attendance than the United States as a whole; in 1920 she expended \$47 more per child, and her investment in school property was \$82 more per child than that of the United States as a whole. California's general status

³The data in the present article are taken largely from the author's recent volume published by the University of Minnesota, "Studies in Public School Finance, The West, California and Colorado."

²Computed.

³Computed from unpublished data furnished to the author by Bureau of Education.

chiefly from the following publications: Fourteenth Census of the United States, 1920, "Population, Number and Distribution of Inhabitants," Volume III, *Population, Composition and Characteristics; Financial Statistics of the States*, 1921; Bureau of Education, *Bulletin* 1922, No. 29, "Statistics of the State School System." The estimates of true valuation are those given by Keith in his article, "Can the United States Afford It?" (Journal of the National Education Association, Volume X, No. 4,

financed not *en masse* but in terms of projects. If a new project is to be undertaken, a new source of revenue must be provided. The new project is not to be supported by tapping sources of revenue provided for already existing objects. Every dollar of the income of the perpetual common school fund must be expended on elementary schools. Separate taxes must be levied for elementary schools, for high schools, for kindergartens, for junior colleges, and for various other projects. Again California sets up in advance certain standards of expenditure, in that, as we shall see, she guarantees from state and county sources together, \$60 for every pupil in average daily attendance upon an elementary school and \$90 for every high school pupil.

State Shoulders Increasing Share of the School Burden.

California belongs to that small number of states which has frankly asserted that the increasing burdens of school support must be met by the state assuming an increasing proportion of the burden of the school cost. To be sure California has shared in the general tendency of placing a decreasing relative proportion of the school burden upon the state. Thus we find that, whereas in 1890 the state provided approximately 52 per cent of all public school moneys, in 1920 she provided only 14 per cent. Nevertheless it was in this year that California adopted a constitutional amendment increasing her state grants per pupil in average daily attendance from \$17.50 to \$30 per elementary school pupil, and from \$15 to \$30 per high school pupil.

Appropriations Versus State School Tax.

Two questions which have been widely discussed with regard to state aid are whether state moneys should be provided by levying a state school tax, or by appropriations, and what type of taxation shall be depended upon for providing state revenue. Shall the state depend for its revenue upon a general property tax, as is commonly done, or shall it employ some new type of taxation such as taxes on incomes or on corporations? To the many states in the Union facing these questions, California offers much of interest. After years of experimenting with a state general property tax, California abandoned the same in favor of biennial appropriations from the state general fund. But at the same time she abandoned the state property tax she adopted the policy of levying a state tax upon corporations, with the result that approximately 60 per cent of the general fund, from which the major portion of all state school aid comes, is derived at the present time from corporation taxes.

Corporation and Inheritance Taxes.

The constitutional amendment providing for the corporation tax does not define the objects to which the proceeds of this tax shall be applied, but does provide that "there shall be first set apart the moneys to be applied by the state to the support of the public school system and the state University." California also makes use of the state inheritance tax for the benefit of her schools. The first \$250,000 of the annual proceeds of the state inheritance tax must be devoted to the state school fund, a term used to designate the total general fund provided for elementary schools. Any excess over this \$250,000 is credited to the general fund, which, as already stated, is largely used as a source of state aid. Attention has been called to the fact that in 1920 the state furnished only fourteen per cent of the total receipts for public schools. It may well be noted that if the constitutional amendment enacted in that year had been in effect in 1921, it is estimated that the state

would have provided in 1921 no less than 26 per cent of the total receipts for elementary and secondary schools.²

No State Tax on Real Property.

Fully as significant as California's policy of insisting that the state shall provide an important proportion of the school revenue is the sharp distinction drawn between property which shall be taxed by the state for school purposes and property which shall be taxed only by districts and counties. The state levies no tax whatsoever upon real and personal property, but derives the majority of its revenue from the proceeds of the state taxes already referred to, namely, corporation and inheritance taxes. Districts and counties on the other hand derive the major portion of their school revenue from general property taxes. As the result of this distinction between types of property for state and for local taxation, personal and real property escape being doubly taxed, first by the state and then by the local units, a condition which is not only common throughout the United States but which is admitted by students of taxation to be one of the greatest obstacles in the way of increasing state revenues, as well as, constituting a thoroughly unsound system of taxation.

Table III which follows shows the various types of state taxes devoted to public schools in California, the net proceeds to the state, the specific appropriations to schools and the use of the balance.

significant features of county school taxation in California is that, instead of fixing a rate, California leaves the rate undetermined. Every county must levy a county elementary school tax sufficient to provide \$30 per pupil in average daily attendance. In addition to the elementary school tax, every county is required to levy two high school taxes known respectively as the county high school tax and the county high school tuition tax. The county high school tax shall be sufficient to provide, (1) \$60 per pupil in average daily attendance upon a high school of said county, or adjoining county, if attendance has been duly approved; (2) reimbursements to high school districts for money expended for transportation of pupils not included in high school districts; (3) reimbursements to high school districts for textbooks furnished free to pupils residing in portions of the county not included in any high school district. The county high school tuition tax must be sufficient to provide funds to pay for the tuition of (1) pupils not residing in any high school district, attending a high school located within their own county; (2) pupils attending a high school in a county other than their own; (3) pupils attending high school in an adjoining state. Despite these liberal provisions, county tax rates in California are by no means sufficiently heavy to prove burdensome. In 1920, county elementary school tax rates varied from 1.5 mills to 5.1 mills, with a median rate of 3.7 mills. County high school tax rates varied from

TABLE III.

TAX	CALIFORNIA STATE TAXES DEVOTED TO PUBLIC SCHOOLS		Fund to Which Applied	Objects	Use of Balance
	Net Proceeds to State 1919-20	Amount ³			
Corporation ⁴	\$19,477,073.50 ⁵	\$1,060,082.26 ⁶	State ⁷ high school fund ⁸	High schools and junior colleges ⁹	Added to state general fund
Inheritance	2,678,158.63 ¹⁰	250,000.00 ¹¹	State school fund	Elementary schools ¹²	Added to state general fund
Poll	1,167.60 ¹³	1,167.60 ¹⁴	State school fund	Elementary schools	Added to state general fund

³Ibid., p. 133.

⁴It might seem that the average attendance grant to elementary schools (\$7,161,184.37 in 1920), to be treated under the topic State Appropriations and Transfers, ought to be included. But although drawn from the general fund, and although the constitution requires that public schools shall have first claim on the proceeds of corporation taxes yet there is not in the case of the elementary school average attendance grant law any provision which requires that corporation tax proceeds be devoted to the above said grant. Although there may be no distinction to all practical purposes, technically, there is a very marked distinction which this table must recognize. Cf. note 1.

⁵California Controller Report, 1919-20, p. 22.

⁶Ibid., p. 68.

0.6 mill to 3.1 mills, with a median rate of 1.4 mills.

It is impossible in the present brief account to describe certain minor county sources of revenue which contribute to the support of schools. Mention must be made, however, of the fact that the salary, office expenses, traveling and miscellaneous expenses of the county superintendent are paid, not out of any school fund, but out of the county general fund, as are also the compensation and traveling expenses of members of the county board of education.

As a result of requiring the state and the county to furnish large quotas of the school revenue, California, despite many inequalities, has equalized school burdens to a far greater degree than the majority of our states. It must not be inferred from this, nor from the fact that no district is obliged by law to levy a district tax provided the state and county funds at its disposal are sufficient to finance its schools, that the district is less important than the county as a source of school revenue. On the contrary, at the present time the districts furnish approximately twice as much of the total school revenue as is furnished by the counties.

(To Be Concluded)

²F. H. Swift, "Studies in Public School Finance, California and Colorado," page 56, Table XL.

³California makes effective use of the county as a source of school support. One of the most

Heat for Schools from a River Bed

How Harrisburg Has Solved Its School Fuel Problem.

The high coal prices and fuel scarcity of the present school year have caused no worries to the Harrisburg, Pa., school district officials, because of their timely adoption of river coal for fuel in the school buildings, on the recommendation of Frank C. Foose, purchasing agent of the Harrisburg school district.

River coal, as it is known around Harrisburg, is very small sized anthracite that washes down the river from the mining districts, a hundred or more miles away. Some of it comes from the washeries at the mines and some from the old culm piles, established as waste dumps many years ago. While there is a great deal of slate found mixed with the coal when taken out near the mines, the coal is practically free from slate by the time it reaches Harrisburg, due to the fact that the heavier slate settles down as the lighter coal is carried on downstream.

River coal forms bars in the river, much like sand-bars; in fact, mixed sand and coal bars are frequently found.

There are many "coal fleets" operating on the Susquehanna River, near Harrisburg. These fleets consist of puffers, pushers and flats. A pumper is a flat-boat on which is mounted a steam boiler, a steam engine, a centrifugal pump and a screen. The engine driven pump sucks the coal and sand, together with a large amount of water, from the river bed, and discharges the mixture onto the screen. This screen separates the sand from the coal, the coal discharging to the flat alongside, while the water and sand run back into the river. Illustration No. 1 shows a pumper at work.

The pushers are flat-bottomed, stern-wheel, steam engine driven boats, which push the loaded or empty flats between the puffers and the coal docks. Some pushers use gasoline engine power. A pusher is shown in Illustration No. 2. The flats are flat bottomed, square end scows, each having a capacity of fifteen gross tons of river coal.

River coal has, for some years, been used in the large power plants of Harrisburg, more than a hundred thousand tons being taken out each year. Since the installation of improved types of screens on the dredges, the coal is so thoroughly washed free from sand and dirt that it is practically pure anthracite, and a very clean fuel to handle.

To burn river coal requires special furnace equipment, embodying special grates, blowers and control apparatus.

Previous to 1921, the Harrisburg school heating plants burned anthracite pea or anthracite broken lump coal, with some bituminous coal used in three buildings. Early in 1921 arrange-



A RIVER COAL "PUMPER" ON THE SUSQUEHANNA AT HARRISBURG, PA.

ments were made with a firm of engineers to design the special equipment necessary to permit using river coal, to supervise the installation of the equipment, and to supervise the operation of the heating plants for a period of years.

This undertaking has proven remarkably successful and economical. Due to the perfect draft control, better heating of the buildings has been possible than formerly.

The economies, due to smaller quantity of coal required and lower price of river coal, have been so great that it has been possible to pay for all the equipment, including the compensation of the engineers, out of the fuel budget, without increasing the budget over the amount of the year immediately preceding the adoption of river coal as fuel. After the present school year, the fuel budget can be greatly lessened, as the equipment cost of the eighteen schools will have been paid for.

The heating plants altered in eighteen school buildings consisted of many types of cast iron steam boilers, water tube boilers, hot water boilers and hot air heaters. For equipping plants with such a large variety of boilers and heaters, for the use of river coal, it was necessary for the engineers to design and construct a large amount of special equipment, and also select and install motor driven blowers to furnish the required volume of air at the desired pressure. It was especially required that the blowers possess quietness of operation so as not to disturb teachers and pupils located in rooms immediately above the equipment.

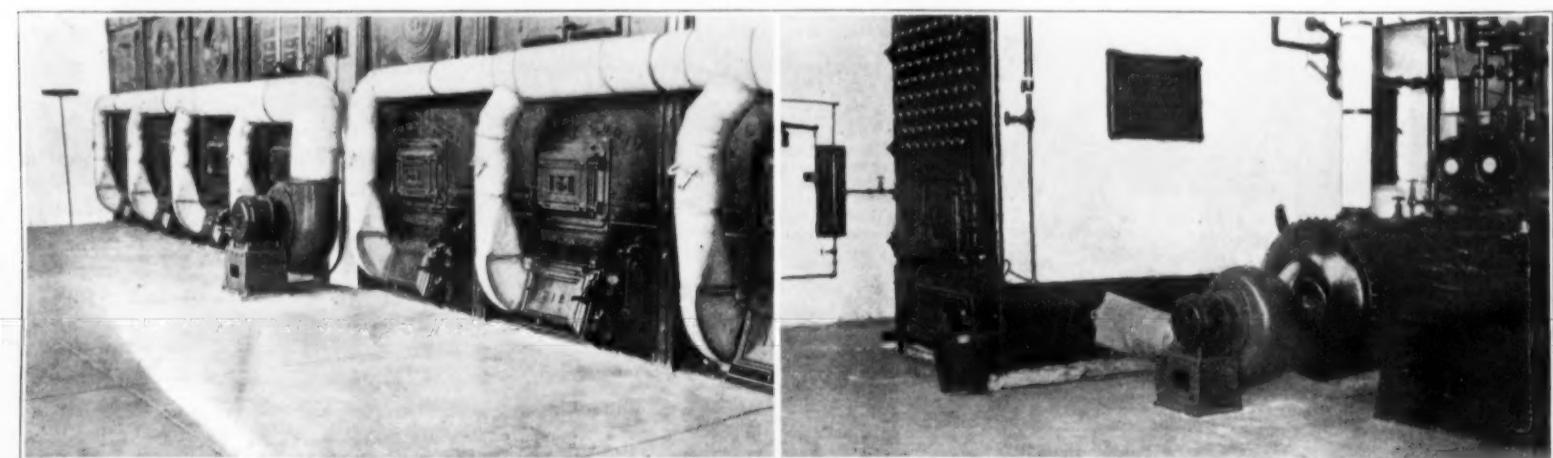
Illustration No. 3 shows two batteries of hot air heaters, each consisting of four units. The blowers and air ducts are shown installed in front of the heaters. Illustration No. 4 is a

general view of the equipment as applied to a water tube boiler in one of the smaller buildings.

The installations were all completed by the time heating was required in the early fall. Coal was purchased subject to the inspection and approval of the engineers, and delivered to each building in quantities sufficient for an entire year. This coal was purchased and delivered at approximately twenty per cent of the cost of anthracite pea coal, which had been previously used, and experience so far has indicated that seventeen per cent less tonnage of river coal is required than was previously used of anthracite pea coal for the same amount of heating. It has also been shown by performance that a long ton of river coal is equivalent to a net ton of bituminous. With the equipment such as is used, practically no coal whatever is lost with the ashes, and less ashes have been hauled away from the buildings since changing to the river coal.

Another advantage in the use of river coal, and one which appeals to the janitors, is that due to the use of forced draft. As the draft is always under perfect control, it can be brought up instantly, and does not depend upon weather conditions. The coal will bank and hold fire for 48 hours, and can be brought up to a very active condition in a very few minutes after the blast is turned into the ash pit. Formerly, during extremely cold weather, it was necessary for the janitors to start the fires at 4 o'clock, or earlier, in the morning. Now janitors can fire up two hours later, and have the buildings up to the required temperature before time for the opening of school. Equipment is made automatic by altering the damper regulator so that it will function by controlling the inlet

(Continued on Page 145)



BATTERY OF HOT AIR FURNACES EQUIPPED FOR RIVER COAL BURNING.

WATER TUBE BOILER EQUIPPED FOR RIVER COAL BURNING.

Financing Michigan Public Schools

Inspector J. B. Edmonson, University of Michigan.

In a few Michigan towns there are indications that the cost of education is reaching the breaking point. In others there is apparently good reason for unlimited faith in the financial ability of the community to meet any reasonable demand for the continued support and further extension of the educational system. It is unfortunate that such striking financial inequalities exist between Michigan towns and cities as they mean, unless changed by larger state aid, that the children in some sections are likely to be deprived of certain educational privileges offered in the more fortunate centers.

This paper has not been prepared to discourage the first group, i. e., the poor district, or encourage the second, i. e., the rich district; but rather to stimulate a very careful study on the part of school authorities of the problem of the future financial support of our schools. The problem must be met and schoolmen should lead the way in attacking the problem.

What is the situation in Michigan in respect to taxation for public school purposes?

To present a clear account of the situation in Michigan in the matter of taxes for school support, the following information has been secured from state reports for the years 1910, 1915 and 1920.¹

TABLE I.

The total taxable wealth of Michigan for each of three years 1910, 1915 and 1920 and the per cent of increase.²

Year	Amount	Increase
1910	\$1,739,652,458	
1915	2,968,236,813	70.6%
1920	5,319,702,886	205.8%

This increase of 205.8 per cent in ten years is a remarkable record of growth in taxable wealth. This marked increase is due in large part to the phenomenal development of the automobile industry and related industrial business. A part of this increase may lack elements of permanency as Michigan has had a boom period. On the other hand, it is doubtful whether the total taxable wealth in 1920 is as large a fraction of the real wealth as was found on the tax rolls in 1910. According to Burgess³ there is a reluctance on the part of municipalities to assess or the basis of values accrued during an emergency or boom period until there is assurance that the new values are permanent. In a later part of this paper it is shown that this is the case in Michigan.

TABLE II.

The total revenue for all purposes, the rate of taxation, and the percentage of increase.

Year	Amount Raised	Increase	Tax Rate	Increase
1910	\$ 35,710,500		20.50	
1915	60,596,921	70%	20.40	
1920	140,438,982	290%	26.40	29%

It is interesting to note that taxable wealth and total revenue increased between 1910 and 1915 approximately together. Between 1915 and 1920, however, the rate of increase in revenues was more rapid than the rate of increase of taxable wealth. In brief the wealth slightly more than doubled while the receipts nearly tripled during the ten year period with the marked increase of 29 per cent in the rate of taxation coming during the last five years. Is it surprising that people are questioning concerning their taxes? How much heavier taxes can be levied before the tax rate will become an influence in retarding the growth of property values?

¹State Tax Commission, 1920.

²Michigan is supposed to be taxed on 100 per cent values.

³Burgess, Trends of School Costs, p. 123.

⁴State Auditor.

TABLE III.⁵
The total revenue for all public school support, the percentage of all taxes devoted to schools and changes for years 1910, 1915, and 1920.

Year	Amount for Schools Raised	Per Cent Increase	Per Cent of All Taxes	Per Cent of Increase over 1910
1910	\$ 8,483,475		23.7	
1915	14,041,643	65.5	23.1	
1920	44,746,118	427.4	31.8	34.2

By reference to Table I it is found that the taxable wealth of the state has increased 205.8% during the last ten years (1910-1920), and in Table III it is shown that the increase in the amount of the revenues for schools has been 427.4%. In brief the taxable wealth has slightly more than doubled while school revenues have multiplied four and one-fourth times. The increase in the proportion of all taxes devoted to schools from 23.7% in 1910 to 31.8% in 1920, an increase of 34.2%, is highly significant. According to Burgess,⁶ the expenditures for education in cities in 1918 were three times as large as any other single expenditure and represented 33% of the total.

According to this, Michigan is not the only section devoting about one-third of its total revenues to schools. Burgess also points out that in the past fifteen years, cities have decreased the proportion of total revenues devoted to the police department, general government, highways and fire protection and have increased the proportion of the revenues expended for education, sanitation, charities, hospitals, corrections and recreation. He says, "It is evidently the intention of the American people to expand the work of government in this direction. The city is taking over functions which were formerly personal and individual." What has taken place in the cities of the United States has taken place in Michigan in the field of education with the result that more modern school buildings, richer programs of study, more special teachers, etc., have been provided at an unusual increase in the total cost. How much more can be undertaken? Can the present program be carried without additional revenue from some tax other than the present tax on property?

TABLE IV.⁷

The percentage of increase in the number of pupils enrolled, the growth in total population and the increase in the number of teachers between 1910 and 1920.

Increase in number of pupils.....	28%
Increase in number of teachers.....	30.5%
Increase in total population.....	30%

It is evident from the above percentages that the schools must now provide for at least 30 per cent more instruction than in 1910. However, this increase of 30 per cent does not call for a 427.4 per cent increase in total expenditures for school purposes. It must be that the schools are now giving more days of instruction and providing a richer and more varied type of instruction for the typical pupil than in 1910. It must also be agreed that a part of the 427.4 per cent of increase is traceable to the decreased purchasing value of the dollar. However, this cannot account for more than 125 per cent of the 427.4 per cent, and the remainder or 300 per cent of increase can scarcely be urged as the increase needed to care for a thirty per cent increase in enrollment. The increase must

TABLE V.⁸

The amount of money distributed each year by the state from the primary school fund and the proportion of school expenditures furnished from this source.

Year	Amount	Per Cent of Increase	Proportion
1910	\$4,901,823		57%
1920	9,346,024	90.6	17%

⁵Data furnished by Superintendent of Public Instruction.

⁶Burgess, p. 129.

⁷Data furnished by Superintendent of Public Instruction.

⁸Data furnished by Superintendent of Public Instruction.

be justified in terms of more and better education for the typical boy and girl. Can it be so justified?

The primary school fund in Michigan is a fund made up of certain interest returns on the permanent school funds and certain taxes on public utilities. It is apportioned annually on the basis of the school census of each district. The effect of this method of apportionment is often to make the greatest contribution to the district in the least need of state aid. However, it should be noted that the proportion of the total expense of schools borne by state aid has decreased from 57% in 1910 to 17% in 1920. It is evident that the time has come when Michigan must readjust the division of school support between the districts and the state. A committee of the State Teachers' Association has recently recommended "that a state fund should be raised and apportioned in a way to encourage improvement by allowing quotas on several bases. For each teacher of required training employed by a district the state should allow a quota. For the aggregate days attendance in a district an amount should be allowed thus encouraging a long term and regular attendance of all children of school age. For the maintenance of instruction above the elementary grade, or for the maintenance of certain special quotas might well be allowed the district."

What would it cost to maintain the public elementary schools and high schools of Michigan on an adequate basis? According to Claxton (School Life, May 15, 1921), we shall have to spend an average of not less than \$1200 for the elementary and high school education of each child. Assuming twelve years of training for each child, the required amount per year is one hundred dollars. The statistics for Michigan for the past year show an enrollment of 680,000 children in the public schools out of a school population of 950,000 (ages 5 to 20). Eliminating those cared for by private and parochial school agencies and eliminating those past the high school age, it appears that Michigan should have about 800,000 in her public schools.

According to Claxton's estimate this would call for an annual expenditure of \$80,000,000 as against the present expenditure of \$44,700,000. And this is not all, as the increased enrollment would call for an increase in an investment in school building of many millions of dollars. Can Michigan provide this needed amount for the adequate support of its public school system? On this problem President David Friday of the Michigan Agricultural College has recently said, "The total savings bank deposits in the state in 1911 amounted to \$190,000,000. By 1921 they were \$485,000,000. Even now they are on the increase. Nowhere in the state does one find any lack of prosperity or well-being. Truly the war revealed taxpaying abilities of which we had not dreamed."

It is not the purpose of this article to point a moral, but rather to set down a few significant facts concerning one of the most vital subjects in modern industrial society. Yet one is tempted to observe two things. First, that practically every social reform which has ever been abandoned for lack of funds could have been carried out with the money which we spent on war. And second, that the plea that expenditures for education or any other form of governmental activity for the benefit of the public

must be curtailed for lack of funds cannot be treated seriously by those who know the facts.⁹

TABLE VI.¹⁰

The inequalities by twenty typical counties in the amount of taxable wealth for each child of school age.

Valuation per capita for Michigan Counties.	
Missaukee	\$1,051
Lake	1,535
Cheboygan	1,754
Delta	1,923
Gladwin	2,049
Alpena	2,117
Bay	2,250
Oceana	2,345
Emmet	2,392
Midland	2,903
Muskegon	3,013
Baraga	3,141
Saginaw	3,430
Schooldraft	3,505
Houghton	3,677
Jackson	4,450
Kent	4,833
Kalamazoo	5,870
Wayne	6,051
Keweenaw	8,631

The range of \$1051 per child in Missaukee County to \$8631 per child in Keweenaw suggests the marked differences in the capacity of different sections of the state to support schools of equal rank on local taxes. Some workable plan of a state unit for school support is needed.

TABLE VII.¹¹

The amount and division of school and total taxation in twenty typical towns and cities, 1920.

Town	Population	Per Cent		
		School Tax per \$1,000	Total School Tax per \$1,000	Tax is of Total Tax
Adrian	11,878	11.20	33.70	33
Albion	11,000	17.19	36.21	46
Alma	8,000	11.43	30.00	38
Alpena	12,000	5.90	18.30	32
Ann Arbor	19,516	9.30	27.25	34
Bay City	55,000	9.81	33.00	20
Benton Harbor	12,223	14.36	34.43	32
Big Rapids	5,000	17.20	39.94	43
Birmingham	3,684	16.80	30.25	55
Boyne City	4,285	23.79	54.73	43
Cadillac	10,000	11.36	23.28	48
Calumet	35,000	10.50	32.88	31
Caro	2,704	11.35	26.71	42
Champion	1,000	30.40	42.80	71
Charlevoix	3,000	12.00	44.32	27
Cheboygan	5,783	13.50	44.91	30
Chesaning	1,500	26.75	37.50	71
Crystal Falls	5,884	14.67	39.79	36
Detroit	1,000,000	7.61	20.66	36

It would be instructive to inquire why Champion and Chesaning require 71 per cent of the total taxes while other places require only 30 to 40 per cent. It is also evident that many localities have reached a point where further taxes for all purposes are economically unwise as property cannot bear taxes of \$36, \$44 and even more per thousand.

Summary and Conclusions.

To summarize, a study of the situation in Michigan in the matter of taxes from property for school purposes shows:

First. That the increase in total school expenditure has been out of all proportion to the increase in taxable wealth or total state expenses. Of course, there are the factors of the decreasing purchasing power of the dollar and the tendency of tax rolls to respond slowly to increases in real wealth, but with a fair allowance for these factors, it must be agreed that school expenses have been increasing at a surprisingly rapid rate and that school authorities are facing a time when lower expenses, newer sources of revenue or increased confidence in the value of the work of the schools will be necessary to prevent a serious crisis or a period of retrenchment.

Second. That the inequality of taxability in the different sections is becoming increasingly noticeable through the decreasing proportion of the school expense cared for through the money from the state fund. With a decrease from 57 per cent of the total expense to 17 per cent, the less prosperous sections have been forced to pay excessive school taxes. A few of the larger school tax rates in 1920 were Durand \$30, East Lansing \$26, St. Charles \$23, Menominee \$21, Union City \$22. The total taxes for all purposes in many cities are such as to take a very

⁹Friday, David, "The Burden of Taxation," The New Republic, August 2, 1922.
¹⁰Michigan State Teachers' Association Report, 1921.

¹¹M. S. T. A. Report, 1921.



ZENOS E. SCOTT.

Superintendent Elect of Springfield, Mass. It is well known that Springfield, Mass., has for the past several decades chosen its school superintendents with exceeding care and caution. It has usually sought the ablest its board of education could find no matter where he happened to be located.

When James H. Van Sickles resigned, such resignation to take effect August 1st, the board cast its eye about the country for a worthy successor. Zenos E. Scott was chosen. He accepted notwithstanding the fact that the salary was less than he obtained at Louisville and notwithstanding the further fact that the Louisville school board offered to make the financial consideration even a more attractive one.

Zenos E. Scott attended Moore's Hill College and the Teachers' College of Columbia University, receiving his degrees in both. He filled the office of assistant commissioner of education of New Jersey and then came to Louisville, Ky., where he gave splendid evidence of his power as an educational leader.

Mr. Scott is a native of Indiana and is forty five years of age. At Springfield, Mass., he will have a board of education behind him that will lend him whole hearted support in every departure he may engage in towards bringing the schools to the highest standards of efficiency.

large share of the total rental return from property.

Third. It is evident that there is need in Michigan for:

(1) A larger state fund raised through some tax other than one on property, the fund to be distributed among the school districts in such a way as to equalize school burdens.

(2) The increase in certain service charges for school privileges such as a heavier tuition rate for non-resident pupils in high schools. (Under new legislation this is possible in part).

(3) A study of the problems of school costs to the end of eliminating wasteful practices. A reference to the per capita costs in Michigan shows that some districts spend three times as much per capita as others on instructional costs. Can this be justified?

(4) The consideration of plans for substituting an income tax for the tax on property as a source of support for schools. According to the 1920 returns Michigan paid a Federal tax of \$187,521,306 on incomes. This sum is more than the total revenues raised for all purposes by the property tax and four times the amount raised in 1920 for the schools. Might not a state school tax on incomes relieve property of a threatening load and give the schools the needed funds for further development?

(5) A more consistent and intelligent effort to place the much boasted "faith of the American people in education" on such a firm basis of understanding of aims and values as will insure that in one way or another the funds will be provided to meet the increasing school costs. In brief, more educational publicity is needed in order to meet the changing conditions.

An Encouraging Awakening.

At this time it is encouraging to read the splendid resolution on education adopted at the recent annual convention of the Michigan department of the American Legion. The resolution is a highly significant one because of the character of the organization back of it. A part of the resolution reads:

"We, the Michigan department of The American Legion, in annual convention assembled on the fifth and sixth of September, 1922, in Ann Arbor, the seat of the great University of Michigan, do hereby resolve to lend our enthusiastic aid and support to the vital and necessary plan of expansion for the great seat of learning so nobly dedicated to the advancement of the education of every citizen of our commonwealth.

In the great war, particularly in 1917 and 1918 we expended billions of dollars and willingly sacrificed the youth and the best blood of our country to preserve the higher form of civilization which education has made possible. We, therefore, take sharp issue with those in the state who say, 'let us economize on education and its costs.' The greatest need in our country today is for statesmen and leaders who can only come from our institutions of highest learning, where pure democracy is idealized.

We are fully conscious of the fact that education requires money. We are also convinced that the neglect of education will cost much more. Failure to support education is evidence of the lack of statesmanship and vision. 'Where there is no vision, the people perish.'

We believe that the future of the state and nation depends upon a high level of intelligence in every community and we pledge ourselves to cooperate effectively with the forces of education in Michigan in their service to the public."

With the support of the strong and vigorous leadership of the American Legion, the public school authorities of the state need have little fear that needed expansion in school systems will be thwarted through failure to provide necessary financial support.

STRAINING SCHOOL TAX SOURCES.

The City Superintendents' Association of Illinois recently went on record favoring a \$20,000,000 distributive school fund in order to provide adequate support for the several school districts and thus equalize the educational opportunities of the state.

In making this recommendation the association recognized the fact that the present local tax sources were strained to their utmost and that therefore a more liberal state support must be created to relieve the situation. The supposition here is that there are tax units which may bear an added pressure without causing an undue strain.

The association might have gone one step farther and pointed out the feasibility of tapping new tax sources. The State of Illinois has in hand a revision of its constitution in which the proposal for a more equitable distribution of the tax burden, with a view of securing a more liberal yield, is made. This proposal deserves the thoughtful consideration of the Illinois educators.

The principle of fixing the tax yield upon the ability to pay as against the present unscientific method, is yet to come into its full recognition. While the national government has recognized this principle the states, with a few exceptions, have not.

The educator will readily recognize that an equitable exaction of a tax revenue precedes an equitable distribution of the same. Thus, those who propose a larger tax revenue may properly be asked where the larger revenue is to come from. To merely hold that it is for the educational authorities to make their demands, and for the tax authorities to meet them, may not satisfy the legislator. Serving, as he does, in a representative capacity he has the right to know what an intelligent constituency thinks and believes, and what it can suggest in the direction of remedial legislation.

While the educational expert cannot be expected to also be a tax expert he nevertheless

(Concluded on Page 146)

Analysis of the School Janitor's Job

B. H. Van Oot, Director of Industrial Education, Blacksburg, Va.

This analysis has been made at the suggestion of several school superintendents and members of school boards who have felt that the janitor service in their respective cities could be greatly improved and much economy practiced if some system of janitor training could be instituted whereby janitors could be taught to perform their several job responsibilities efficiently and systematically. The job of making the analysis was undertaken by a group of students in the department of trades and industries of the Virginia Polytechnic Institute. While the several jobs listed and the information concerning the same apply directly to the responsibilities of a janitor in one of the college buildings, yet the analysis is sufficiently broad and flexible to allow application in any given community where similar or nearly similar conditions exist.

Under the provisions of the Smith-Hughes act, classes for the improvement of janitors in service may be organized on a part-time basis, and funds for carrying on the same may be forthcoming from the state department of education. The responsibility for conducting the class may be placed upon the local director of industrial education who may either conduct the class personally or assign the duty to some other competent instructor. The time for class meeting may be suited to local conditions; Saturday afternoon being usually the time when most janitors are relieved from their duties.

The need for such training is quite evident. Janitors, as a rule, are men who are anxious to render the maximum of service to their employers, but because of the great variety of services which they are called upon to perform, and because of the improbability of their having gained training to efficiently perform these services, much waste of time, money, and materials result, either through ignorance of how to perform the duty or through useless experimenting and useless work. Janitors usually lack information concerning sanitation, fire and insurance regulations, principles of heating and firing, action of soaps and other cleaning agencies upon woodwork and finishes, and the proper methods of treating floors, windows, glass, and blackboards. Further than this, many times simple repairs upon the plumbing, lighting, heating, and ventilation systems can be taken care of in time by a well trained janitor which would eliminate the necessity of engaging trade experts to correct the fault after it has passed the "simple repair" stage, thus saving considerable expense to the school system and eliminating many inconveniences to the pupils and teachers.

Incidentally, the fact might be mentioned that through giving a course to janitors standard methods of procedure and standard quality of materials may be observed which would unify the work of the janitor and allow the purchasing of materials on a large scale—instead of in small quantities as is now the practice in some communities. Further than this, many janitors lack ideals of what constitutes proper sanitary conditions, and of accuracy and neatness in workmanship. Frequently they "patch up" a piece of repair work and are perfectly satisfied with the results as long as they "get by" with it. For this reason the analysis following contains certain appreciations and abilities which it is hoped will tend to develop among janitors ideals and standards which are demanded in a modern community.

It has been stated that the analysis which follows is general in nature. In order to use it effectively in a given community the person

responsible for giving the instruction would have to check it over and adjust the instruction to the local conditions, conforming to local laws, local job responsibilities, and working materials and equipment furnished by the local school board.

The methods of presenting the information will necessarily differ in different communities and sometimes in different centers of the same community. For this reason, information which concerns the group as a whole should be separated from that which concerns only a few. For example, laws covering employment and janitor responsibility, of sanitation, of fire hazards, of what to do in emergencies, of treatment of glass surfaces, of wooden floors, and regulations concerning personal hygiene and responsibilities may be discussed with the group as a whole; on the other hand, information concerning the operation of heating plants, treatment of different types of blackboards, disposal of waste, and other such information may have to be taught to the specific group using like equipment and like materials.

- I. Administrative Objectives.
 - A. Analysis to determine where need is felt.
 - B. Analysis to determine what facilities are available for giving course.
 1. Meeting place.
 - a. For conference and lectures.
 - b. For demonstration and participation.
 2. Instructors.
 3. Apparatus.
 4. Hours to hold class.
 5. Length of course.
 - C. Method of conducting class.
 1. Demonstration.
 2. Conference discussion.
 3. Telling (lectures).
 4. Individual participation.
 5. Questions and answers.
 - D. Organization of units of instruction.
 - E. Pay of instructor and reimbursement for same.
 - F. Cost of apparatus and materials.
 - G. Methods of recruiting classes.
- II. Advantages of a Janitor's Position.
 - A. Permanent job for efficient worker.
 - B. Standard salary with certain pay.
 - C. Indoor work (mostly).
 - D. Gives experience in a large variety of work.
 - E. Association with persons of culture.
 - F. Association with persons of varying characteristics (study of human nature).

- III. General Objectives in Job Analysis.
 - A. Information concerning his job.
 - B. Appreciation of methods, schedules.
 - C. Abilities to perform jobs.
- IV. Contact Points.
 - A. Contact points of a general nature.
 1. Information.
 - a. On location of fire apparatus and alarm box and telephone.
 - b. On state and city laws relative to fire prevention, sanitation, safety, trespassing, loitering, destruction of property, building inspection, labor laws.
 - c. As to what papers (bills, receipts, etc.) he may sign.
 - d. On first aid.
 - e. On avenues of authority.
 - f. On authority invested within janitor's job.
 - g. On avenues of cooperation.
 - h. Regarding rules of hygiene and sanitation.
 - i. On regulation of activities over period when building is not being used.
 - j. As to records he should keep.
 - (1) Delivery of coal, cleaning materials, classroom and working supplies.
 - (2) Delivery and consumption of working equipment, such as brooms, brushes, pails, shovel, lawn mower, hose, sprinkler, knives, garden

2. Tools, carpenter tools, plumbing tools, electrician tools, etc.
- (3) Repairs made about buildings.
- (4) New apparatus or equipment made by janitor.
2. Appreciation.
 - a. Of value of carefulness to prevent fire losses, accidents, sickness.
 - b. Of value of economy in materials and supplies.
 - c. Of value of enforcement of state and local laws regulating activities about school buildings.
 - d. Of value of keeping supply records correct.
 - e. Of value of modern conveniences in a school building.
 - f. Of value of services to others.
 - g. Of value of lines of authority.
3. Abilities.
 - a. To carry out items listed under information (listed above).
 - (1) Ability to eliminate causes for fire losses, accidents, and sickness.
 - (2) Ability to economize on supplies and materials.
 - (3) Ability to enforce (or have enforced) state and local laws regulating activities about school building.
 - (4) Ability to keep records correctly.
 - (5) Ability to use modern conveniences correctly.
 - (6) Ability to be of service to others.
 - (7) Ability to follow lines of authority.
 - B. Classrooms, offices, halls, basement, etc.
 1. Information.
 - a. On sweeping and cleaning floor.
 - b. On cleaning windows.
 - c. On dusting benches, desks, etc.
 - d. On adjusting misplaced furniture and fixtures.
 - e. On cleaning blackboards and fixtures.
 - f. On disposal of trash.
 - g. On cleaning walls of cobwebs, finger prints, etc.
 - h. On cleaning hardware.
 - i. On reporting needed repairs.
 - j. On having supplies (crayons, erasers, etc.) ready on time.
 - k. Regarding proper temperature and humidity of room.
 - l. Concerning lights.
 - m. Concerning care of inside flowers and plants.
 2. Appreciation.
 - a. Of value of sanitation.
 - b. Of value of good appearance.
 - c. Of value of prevention of fires, accidents.
 - d. Of value of his services rendered.
 - e. Of value of schedule.
 - f. Of value of preventing waste (sweeping compound, soaps, other cleaning materials, water, light, and time).
 - g. Of value of organizing work units.
 - h. Of value of cooperation.
 3. Abilities.
 - a. To perform efficiently items listed under information (above).
 - b. To carry on work in organized manner.
 - c. To exercise judgment.
 - d. To initiate improvements.
 - C. Boiler room.
 1. Information.
 - a. On building fire.
 - b. On cleaning fire.
 - c. On banking fire.
 - d. On regulation of draft.
 - e. On correct amount of water to use.
 - f. On reading gauges.

- g. On disposal of waste.
- h. On cleaning up room.
- i. On location of various operating points.
- 2. Appreciation.
 - a. Of value of safety.
 - b. Of value of sanitation.
 - c. Of value of good appearance.
 - d. Of value of his service.
 - e. Of value of schedule of work.
 - f. Of value of organizing work units.
 - g. Of value of cooperation.
 - h. Of value of prevention of waste.
- 3. Abilities.
 - a. To perform efficiently items listed under information (above).
 - b. To use trade (job) judgment.
 - c. To carry on work in organized manner.
 - d. To cooperate with other service departments.
- D. Toilets, water supply, and drainage.
 - 1. Information.
 - a. On use of disinfectant.
 - b. On sweeping and cleaning.
 - c. On operation of flush tank.
 - (1) Siphon.
 - (2) Low down.
 - (3) Float valve.
 - d. On cleaning of bowls, wash basins, traps, walls.
 - e. On supplies (towels, paper, soaps).
 - f. On use of deodorants.
 - g. On ventilation.
 - h. On soil pipe connections.
 - i. On operation and repair of drinking fountains, faucets, etc.
 - j. On location of cut-off, curb-cock, corporation cock, stop and drain cocks, etc.
 - k. On repair of bibb-cocks.
 - (1) Self closing.
 - (2) Lever handle.
 - (3) Fuller.
 - (4) Wash-tray.
 - (5) Basin, etc.
 - l. On care of porcelain and enamel ware.
 - m. On drain attachments.
 - n. On operation of traps.
 - o. On operation of water closets.
 - (1) Wash out closets.
 - (2) Wash down closets.
 - (3) Siphon jet closets.
 - p. On use of plumber's friend.
 - q. On water heaters.
 - r. On repair of showers.
 - 2. Appreciation.
 - a. Of value of services rendered in performing duties listed under information (above).
 - b. Of value of making necessary repairs when need presents itself.
 - c. Of value of saving to the community through janitor taking care of repairs "on time."
 - d. Of value of keeping all equipment in good working condition.
 - e. Of necessity of promptly reporting all work which requires services of trade experts.
 - 3. Abilities.
 - a. Ability to perform efficiently all items listed under information (above).
 - b. Ability to carry on work in organized manner.
 - c. Ability to exercise judgment.
 - d. Ability to initiate improvements.
 - E. Territory surrounding building.
 - 1. Information.
 - a. On how to cut grass and weeds.
 - b. On policing lawn.
 - c. On trimming up shrubbery.
 - d. On repairing walks, paths, fences, etc.
 - e. On disposal of trash.
 - f. On cleaning outside walls, porches, walks, etc.
 - g. On reporting repair work.
 - h. On cleaning out gutters and drain pipes.
 - i. On working flower beds.
 - 2. Appreciation.
 - a. Of value of sanitation and safety.
 - b. Of value of good appearance about school grounds.
 - c. Of value of service rendered.
 - d. Of value of schedules.



E. A. CHRISTY,
Architect, Board of Education,
New Orleans, La.

Mr. Christy, who has been for some years chief architect of the New Orleans Department of Public Property and who has designed all of the recent school buildings erected in the city, has been made an official of the board of education and has been placed in complete charge of the extensive school building and rehabilitation program.

- e. Of value of cooperation with other service departments, students, and public.
- f. Of value of organizing his work.
- 3. Abilities.
 - a. To perform efficiently items listed under information (above).
 - b. To distinguish between essentials and non-essentials.
 - c. To cooperate with other service departments.
 - d. To schedule his work.
 - e. To use job judgment.

- F. Errands.
 - 1. Information.
 - a. Concerning location of all buildings, cooperating departments, or agencies.
 - b. Concerning most direct route to.
 - c. Concerning approach to other individuals.
 - d. Concerning manner of delivery of messages and checking of same.
 - 2. Appreciation.
 - a. Of value of service rendered.
 - b. Of value of accuracy and punctuality.
 - c. Of value of correct manner of approach.
 - d. Of value of personal hygiene and appearance.
 - e. Of value of trustworthiness.
 - f. Of value of cooperation with other departments.
 - g. Of value of time.
 - 3. Abilities.
 - a. To perform errands in most efficient manner.
 - b. To be accurate and punctual.
 - c. To approach in the proper form.
 - d. To practice personal hygiene.
 - e. To cooperate.

- G. The carpentry work a janitor may do (or have done).
 - 1. Mend broken chairs, desks, tables, etc.
 - 2. Mend broken porches, stairs, steps, etc.
 - 3. Mend wooden floor.
 - 4. Keep picture moulding in good repair.
 - 5. Make flower boxes.
 - 6. Keep schoolhouse "conveniences" in usable condition (coat hooks, umbrella stands, door mats, foot-scrapers, etc.).
 - 7. Mend broken door parts, such as (panels, hinges, locks, rails, stiles, etc.).
 - 8. Mend broken window parts (sashes, mullions, latches, weights, ropes, replacing broken panes, etc.).
 - 9. Mend broken fences, gates, garden benches, trellises, etc.
 - 10. Mend or build out-houses.

- 11. Replace shingles.
- 12. Oil sash pulleys.
- H. The plumbing work a janitor may do (or have done).
 - 1. Tighten loose joints in pipes.
 - 2. Replace bulbs in flush tank.
 - 3. Replace and repair valves.
 - 4. Clean traps.
 - 5. Replace and repair faucets.
 - 6. Repair and adjust parts of flush tank.
 - 7. Replace broken pipes (or see that they are replaced).
 - 8. Thaw out frozen pipes.
- I. The electrical work a janitor may do (or have done).
 - 1. Determine whether bulb is burned out or not.
 - 2. Replace electrical bulb.
 - 3. Put in new socket.
 - 4. Repair socket.
 - 5. Repair switches (all kinds used in building).
 - 6. Put in fuses.
 - 7. Tap line for extension cord.
 - 8. Use tape.
 - 9. Read meters.
 - 10. Install new fixtures.
 - 11. Remove old fixtures.
 - 12. Adjust brushes on motor.
 - 13. Correct short circuits.
 - 14. Regulate speed of motors.
 - 15. Connect batteries and replace batteries.
 - 16. Repair bells.
 - 17. Care for electric motors (cleaning commutator, oiling, etc.).
 - 18. Find causes and repair short circuits.
- J. The painting and glazing work a janitor may do (or have done).
 - 1. Revarnish furniture.
 - 2. Paint window frames and screens.
 - 3. Paint woodwork of building.
 - 4. Paint radiator and heating pipes.
 - 5. Paint furnace parts.
 - 6. Paint blackboards.
 - 7. Whitewash buildings, trees, fences.
 - 8. Retouch gym. apparatus.
 - 9. Paint metal lockers.
 - 10. Enamel light reflectors.
 - 11. Mix paints, varnishes, white-washes.
- K. Masonry work a janitor may do (or have done).
 - 1. Repair sidewalks, cement floor, etc.
 - 2. Repair brick work on chimneys, etc.
 - 3. Make simple construction of concrete, brick, stone, etc.
 - 4. Repair plaster.
 - 5. Replace or repair fire bricks in furnace.
- L. Gardening a janitor may do (or have done).
 - 1. Making flower beds.
 - 2. Repairing flower beds.
 - 3. Planting flower and vegetable seeds.
 - 4. Planting flowers, shrubs, and trees.
 - 5. Taking care of flowers, vegetables, shrubbery, and trees.
 - a. Watering.
 - b. Cultivating.
 - c. Fertilizing.
 - d. Trimming.
 - e. Spraying.
 - f. Wrapping for winter protection.
 - 6. Cutting grass.
 - 7. Building paths or walks.
 - 8. Setting out drinking trays for birds.
 - 9. Setting out bird houses.
- M. Tinsmithing a janitor may do (or have done).
 - 1. Repairing and replacing sections of gutters or drain pipes.
 - 2. Repairing tin roofs.
 - 3. Replacing collars about chimneys.
 - 4. Soldering or otherwise repairing utensils and laboratory apparatus.
 - 5. Simple repairs on ventilating and hot air systems.

The above analysis shows that if janitor work is effectively performed it will require a man with experience in many lines of work. The "old time" janitor whose duties consisted of dusting and sweeping and of building fires and running errands is rapidly being replaced by a well-trained skilled individual who is truly as much of a public servant as the teacher, the

(Concluded on Page 146)

Promoting the Growth of Teachers in Service

Supt. Floyd T. Goodier, Chicago Heights, Ill.

From the point of view of this paper, the teachers of the elementary schools of a city system fall into three groups.

First, young, inexperienced normal graduates who have had little opportunity to develop a technique of teaching.

Second, older teachers who have lost some of their earlier enthusiasm and who, without stimulus from others, will easily lose the power and habit of growth.

Third, ambitious teachers of experience who welcome constructive criticism both as an aid in their present work and as a means for developing proficiency which will lead to deserved promotion.

While the first group is the one in greatest need of assistance, no thoughtful superintendent can fail to realize that it is a privilege as well as duty to provide means of growth for the second and third groups also.

This article outlines four methods which during the past four years have been successfully used in promoting the growth of the elementary teachers of one school system.

1. The Observation and Discussion of Type Lessons.

Modern texts in psychology and education were purchased and placed in the various buildings. Each month the teachers were given an outline with references for the study of a type of lesson for a general meeting. An experienced teacher of the system was asked to bring some of her own pupils to the meeting and present a lesson of the type being studied. At the close of the presentation, the superintendent conducted a round table discussion upon the lesson in the light of the material used by the teachers in preparation for the meeting.

In this exercise the following points need to be kept in mind. A superior teacher should be chosen to present the lesson and she should be given sufficient time to make adequate preparation. Her plan for the lesson may well be mimeographed in advance and placed in the hands of the observing teachers. The criticism of the lesson should be sympathetic and constructive, placing emphasis upon the points of excellence.

2. The Study of a Particular Book.

Superintendent Sheridan's little text, "Speaking and Writing English," is peculiarly adapted to a community like this, with many school children of foreign parentage. The superintendent and principals saw in the text a means of bringing to the teachers the right approach to oral and written English.

Each teacher was asked to purchase a copy of the text. Then the teachers were placed in three groups—primary, intermediate, and grammar—as determined by the grades which they were teaching. A committee of teachers was chosen from each group to plan for the meetings and take charge of the discussion. In this way each group covered the entire text, paying special attention to the grades in which the teachers of the group were most interested. The superintendent and some of the principals attended each conference and took part in the discussions.

3. Visiting-Days.

The ordinary visiting-day is largely a "snare and a delusion" as far as any good which the teacher derives from it. It is a make-shift by which the teacher is enabled to spend a day with a former chum, take advantage of shopping bargains in the city, make application for a better position for the following year, attend a good

matinee, etc. With these conditions in mind and with a realization of the possibilities for growth in visiting other teachers, the following plan was evolved.

In a conference of principals and superintendents, the teachers were divided into three groups and three neighboring cities were chosen for visits. Letters were sent to the superintendents in these cities and permission was obtained to make the visits. Before the day of the visit, the superintendent in the city to be visited suggested names of buildings and rooms where superior work could be seen. The visit was not made on Friday. The superintendent and principals accompanied the teachers. The party reached the schools about nine o'clock. Rooms were visited until three o'clock, when a conference was called between the visiting teachers and a representative of the administrative force of the schools being visited. At this conference questions were raised regarding the work seen, explanations were made, and the visiting teachers given a better understanding of the aims and methods of those in charge of the schools. Following this conference all teachers returned home ready for their customary duties the following day.

Within a few days, a general teachers' meeting was held at which time those teachers who had made the visit reported the good things witnessed to the other teachers. In this way, each visit became valuable to all the teachers of the system.

4. The Study of Educational Problems.

Every superintendent is confronted with many concrete problems connected with the conduct of the schools under his supervision. These problems deal with course of study, methods of teaching, grading and promotions of pupils, the classification of pupils, retardation, reports and records, and kindred topics. How shall he approach the solution of these problems?

The day of the autocratic superintendent has gone. The principles of democracy must control our school system. School policies, course of study, choice of textbooks, and general rules of school procedure must be determined through the cooperation of teachers, principals, supervisors, and superintendent. There is also the practical argument in favor of this method that teachers are more interested in the success of a plan where they themselves have had a part in formulating it. The Superintendent listed a number of subjects which he felt needed attention in this school system. These subjects were given to the principals with the suggestion that each consider the list with her teachers and choose one for study. The suggestion was adopted and later in the year, each principal with her teachers, was given the entire time of a general teachers' meeting to report upon the topic.

A group chose the topic, "The Improvement of Instruction through the Use of Standard Tests." The final report explained the grades of pupils when the various tests were first given, the remedial measures used, and the improvement shown when the tests were given the second time. The report was illustrated with charts and graphs.

A second group made a study of "Standards for the Grading and Promotion of Pupils." The study proved to have so many ramifications and produced such differences of opinion on the part of teachers that it was difficult to reach

any general conclusions. However, the tentative report suggested various lines for further investigation and proved the basis for a new grading system now in use.

This study of an educational topic by the teachers of a building, under the leadership of their principal, with a report to all the teachers of the system is one of the most valuable means of growth for the teachers.

First, the teachers of a single building make an excellent group to work upon a problem. They are acquainted, are well located to utilize their time, and have a common point of view.

Second, when various buildings are making a study of different educational topics, friendly rivalry stimulates each group to put forth its best efforts in preparing its report.

Third, as the entire teaching force listens to the reports and takes part in the discussions, all naturally come to have an active interest in the problems of the school system. They are thus prepared for forward steps and have a right to feel that they are individually and collectively making worth-while contributions to the policies of the system.

The entire teaching force has profited from the methods of supervision here described. Each year a relatively large number of normal graduates with little experience has been taken into the system without lowering the standards of the schools.

These young women have entered upon their duties with enthusiasm, open-mindedness, and adaptability. True, their methods are better adapted to a class of fifteen than one of forty, their plans are somewhat formal and "machine-made," and their general attitude is inclined to be stilted and unnatural. But they are willing to work and willing to learn. They have a right to expect help from the supervisory force of the school employing them. The normal schools can do little more than lay the foundation of teaching technique during the short time in which they have their students. No superintendent has any right to criticize adversely the work of normal schools, if the graduates of the normals are put to work in his school system without assistance and then fail.

The more experienced teachers have found in the methods described above a genuine stimulus for continued growth. They have been encouraged to read modern educational literature and to interest themselves in educational experiments being conducted in other localities. They have been led to study their own problems more intelligently, modify their methods in the light of their study, and carefully evaluate their results. Also in helping themselves they have directly and indirectly helped the young teachers.

The greatest value of a definite program for training teachers in service comes in the effect upon the morale of the corps as a whole. Teachers like to be a part of a school system that is alive and growing, they like to feel that they are conversant with modern educational tendencies, and prepared to take part in such investigations as are possible with the means at their disposal. They may make such progress as to promote themselves to other school systems where the tangible rewards for teaching are greater. But this only adds to the general good spirit of the corps as the other teachers realize that growth does promise promotion either within the system or to some other system.

Three Elements in Effective Supervision

Supt. H. C. Storm, Batavia, Ill.

It seems as if people had talked and written about supervision ever since the morning stars sang together. Even before Shakespeare's boy went "creeping like snail unwillingly to school" people had written articles on school supervision, and they have been at it ever since, but the end is not yet. So long as we have so large a teacher turn-over every year and so long as we have so many thousands of inexperienced girls entering the teaching ranks each year we shall need to constantly improve in our supervision of teachers. Instead of too much being said there is altogether too little said about supervision. We have plenty of talk of a destructive nature on the part of those supervised. We even have classroom teachers who think themselves so perfect and so wonderfully professional that they need no supervision. They would do away with all supervision and would fain sink all supervisors to the bottom of the deep blue sea. If they ever succeed our public schools will go to the bow wows.

There are reasons of course, as our friend Post would say, for the criticism of supervision, and the chief reason is that we have had so much poor supervision. We have had too much of it that was supervision in name only. Now, I hold three things to be fundamental to good school supervision, and the first of these is to see to it that every teacher is busy at her job. A first class teacher will always be busy enough, but the rank and file of teachers need supervision in order to keep them absolutely at their task. There are several ways in which this can be accomplished.

One way is to see that each teacher has a definite aim in view in her teaching and to constantly encourage her to strive to accomplish that aim. It is a good thing at the beginning of each year to have each teacher write out what she aims to accomplish in each study. After this is done the superintendent and teachers should go over these aims together and decide whether they are worthy and adequate.

Then there is the school exhibit. Some people do not believe in school exhibition because of the danger of stressing so-called "show work." They feel that one can not show the real work of the school in any school exhibit. There is some truth in this. On the other hand one can show some very good work, and the half loaf is better than none. The average school recitation in the days of the parents of our children was so dry that most of our school patrons do not like to visit the schools. They think that we still have the same wooden recitations that they had in the days of their boyhood. As a result of this they will not come to see our regular school work, but they will come to an exhibit. The preparation for an exhibit requires a great deal of extra planning upon the part of a teacher. It means that she has to have some worthwhile projects going on. It means that part of her work has to be well enough done so that she is not ashamed to exhibit it to the whole town. One can easily see that the teacher who wishes her children to make a good showing will work harder at her task than the teacher whose work is never seen by anybody except the superintendent.

In our Batavia schools the school exhibit has been a great factor for good. To be sure it has caused some of the teachers too much work, but in many cases while other teachers have been thinking about salary and have been discontented with their lot, our teachers have been busy at the task of teaching school.

Another means of keeping the teacher busy at her task here in Batavia is the outside book report. We require ten books to be read by each pupil above the first grade every year. This means that each child in the Batavia Schools by the time he finishes the eighth grade, has read seventy books outside of our regular textbooks, and that he has reported orally on these seventy books to his teachers. Most of these reports are given outside of school hours. They take a great deal of time but it is time well spent, and while the teacher is discussing a good book with Johnny she is in better business than gossiping with another teacher about the last party they went to.

To be sure there is much more to good supervision than keeping teachers busy at their task. The next important factor, I should say, is good fellowship.

There are several means to good fellowship, and whatever contributes to getting the teachers well acquainted contributes to good fellowship. One of the means whereby we get acquainted with each other in Batavia is by having so-called "feeds" after our teachers' meetings. The teachers are divided into committees and each committee puts on one feed a year. This enables us to have a dinner after each teachers' meeting without very much of a hardship on anybody, and we have found that these dinners are the best means for good fellowship of anything we have ever tried.

Another way to promote good fellowship is for the superintendent to see each teacher as often as possible. In a large system it is hard for a superintendent to find a great deal of time to visit with every teacher, but in a system of our size of only 38 teachers the superintendent can easily find time to know each teacher thoroughly and to discuss her work. Of course the superintendent will not always talk about the teacher's work. He should encourage teachers to see humorous happenings in their school work. Most of our successful teachers are the ones who have a keen sense of humor, and the superintendent and teachers who are constantly

watching for these humorous happenings and discussing them, are drawn more closely together than are those who are always talking about teaching.

Above all things, in order to have good fellowship there must be a spirit of content and happiness among the teachers. In order to have this the superintendent must always be the teacher's champion. They must feel that he is their friend and that whatever criticisms are hurled at them by parents or by the board of education, he will stand strongly by the teacher so long as there is any chance of the teacher being in the right.

Then too, he will get supplies promptly when the teachers ask for them. In spite of the old saying about Mark Hopkins on one end of the log and John Adams on the other, a teacher can not do her best work without supplies and equipment, and nothing contributes more to the teacher's contentment than receiving her supplies promptly.

Another splendid way to promote this spirit of good cheer is to let the teachers know that the superintendent is always ready to help them to better positions. Progress in the teaching profession is slow enough at best, and the wise superintendent who is really a friend to his teachers will always boost his teachers to the uttermost to better positions. To be sure, sometimes he will be a temporary loser, but in the long run he will be much more of a success because teachers that come into his system will know that he is a real friend and not a man who is simply a friend so long as he can get something out of them.

Another good way to promote happiness is to refrain from too much criticism. The wise supervisor is the one who watches for excellent work and who holds this up as an example to the other teachers. He will promote the desire on the part of the teachers to do excellent work in order that they too may be praised. The superintendent who goes around trying to find things to criticize can always find them, but as soon as the teachers feel that they have a superintendent who is always looking for faults, they become down hearted, they hate to see the superintendent come around.

The relationship between teachers and superintendent should be such that the teachers will be happy when he comes to their classrooms. In order to constantly foster this spirit of happiness and content the superintendent should constantly try to learn things from his teachers. None of us is very wise, and unfortunate indeed is the superintendent who feels that he has fully arrived. The middle aged man in any business can always learn things from the young man, and when the teachers know that the superintendent is trying to learn things from them as well as trying to guide them, there is developed a beautiful spirit of cooperation which means everything to the joy of all concerned.

I have not tried to write an exhaustive treatise on school supervision. Many books have been written upon this subject and there is room for more books, but I am simply emphasizing the fact that three things are fundamental to good school supervision, and these three are—every teacher busy at his task; a spirit of good fellowship; and a spirit of content and happiness.

"Parents send their boys to college to be disciplined and then give them high powered automobiles to keep away from college. Automobiles and education are not synonymous terms." So says Prof. Myers of Princeton. But, that does not jibe with Dr. Winship's slogan which says: "We must pass from the ox-cart to the automobile stage in education."



HARVEY S. GRUVER,
Superintendent of Schools,
Lynn, Mass.

The transition of Dr. Harvey S. Gruver from Worcester to Lynn, Mass., is interesting. He moves from a city having a population of 180,000 to one about half that size. At Worcester he received a salary of \$6,000. At Lynn he will receive \$8,000.

Dr. Gruver is a native of Virginia, having been born at Reliance in that state on November 29, 1874. He was graduated from the Shenandoah College, Otterbein College and Harvard. He served as superintendent of schools at Worthington, Walpole and Worcester, Mass. At present he is president of the New England association of school superintendents.

Research in the Virginia, Minnesota Schools

W. A. Justice, Director.

The department of research was established with the opening of the fall school term in 1921 for the purpose of setting into operation means for the collection of scientific data concerning every activity affecting pupils and teachers; and to suggest possible improvements in methods of supervision and general administration.

The personnel of the department consists of a director, an attendance officer, the clerks of the superintendent's office and a score of teachers who have volunteered their services as "building leaders."

The field of work covered during the school year, 1921-1922, may be summed up briefly in the following topics:

Complete school district census.
Efficient pupil accounting.
"Spot maps" to support a building program.
Establishment of district boundary lines.
Classroom survey—pupil accommodation.
Teacher-pupil-hour study—teaching load.
Salary-wage-cost of living study.
Criticism of schedules and programs.
Book lists—supplementary to course of study.
Revision of old and preparation of new record forms.

General "intelligence" tests—Illinois and Otis.
Achievement tests—Arithmetic practice sheets.

Age-grade-progress study.
Psychological tests—Terman's Binet-Simon.
Non-promotion and retardation studies.
Reorganization of special rooms.
Educational-vocational advisement—files and methods.

Pupil "personality estimates."
Local, county, state reports—statistics.
Publicity.

Several of the more important of these activities, which we have worked out during the year, are explained in the following paragraphs.

Pupil Accounting.

A complete census of the population of the school district was taken by the attendance officer during the months of June, July and August. The data for each child of school age, 6 to 15 inclusive, then were transcribed from

B1-7-1922-10000-607
DEPARTMENT OF ATTENDANCE
PUBLIC SCHOOLS OF VIRGINIA, MINN.
REGISTRATION CARD

Name of Pupil	Last Name	First Name
Address		
Class Grade	Room	School
Date of Entrance		
Send this card to the Department of Attendance within one day after the child enters your class		

1. BASIC RECORD OF REGISTRATION.

the field sheet, "family census record" form B3 to the "permanent school census card," form B1. Both of these cards are illustrated in connection with this article.

The transcription of the individual records and the filing of the cards took place immediately after the field sheets were completed and before the opening of the school term. Inasmuch as this record is continuously checked and kept in up-to-date condition during the year, through information of changes which comes to the notice of the attendance officer, the census functions ideally.

During the first week or two of school members of this office busy themselves with checking the "registration cards," form B4, with the individual census records, so that the whereabouts of all children of school age are known. During the year, no child is transferred from one building to another within the system, is entered as new to the system, or is dropped from the roll, but that a record of such a change comes to this office at the end of the school month on the reverse side of the "teacher's monthly record," form B20. These records are carefully checked by the attendance officer. By means of the census, the registration cards, and

the teachers' monthly reports, "pupil accounting" is efficiently handled.

The method of reporting classroom absences to the attendance officer is indicated in the accompanying form, B18. This form should, according to the direction on the reverse of each sheet, be kept in the office of the building principal for the current week. The attendance officer then can consult the records in the various buildings as he makes his daily investigations. At the close of the week, these forms are sent to the office and are filed by buildings and rooms, for the purpose of keeping a convenient and continuous record of absences in the various grades. The record is kept, not only as information for the attendance officer, but also as material for a semi-annual tabulation of the causes of absence and, consequently, as a study for the causes of retardation.

Age-Grade-Progress Study.

Another important piece of work done by the department was to undertake an age-grade-progress study. We aimed by this step to bring together in tabular and graphic form the age, the grade, and the progress statistics of all the pupils in grades one to eight, inclusive. Such a study is important in that it roughly differentiates between the child who is old and retarded because of mental incapacity and the child who is old and apparently retarded because of long illness or major physical defect.

For example, a child fifteen years of age, entering the sixth grade, may have been in school nine years, but due to mental incapacity, has progressed through only five years. This is a clear case of retardation. On the other hand, a child fifteen years of age, entering the sixth grade, may have been in school for only four years due to serious illness or physical handicap, but has progressed better by one year than the "normal progress" child. This is a clear

B1-7-1922-10000-607
W. A. Justice, Director.

Permanent School Census Card

This card should be kept for every child living in the city.

Last Name	First Name	Native Country	(To be filed in the office of the Superintendent of Schools)							
Address			Names	B	Y	M	D	W	CODE	
			Father	Y	M	D			STATE OF BIRTH	
			Mother	Y	M	D			1. Birth certificate	
			Guardian	Y	M	D			2. Baptismal certificate	
			Spouse	Y	M	D			3. Death certificate	
			Other	Y	M	D			4. Birth record	
				Y	M	D			5. Parent's statement	
				Y	M	D			6. Teacher's statement	
				Y	M	D			7. Other statement	
				Y	M	D			8. Discharge certificate	
				Y	M	D			9. Discharge statement	
				Y	M	D			10. Discharge record	
				Y	M	D			11. Discharge record	
				Y	M	D			12. Discharge record	
				Y	M	D			13. Discharge record	
				Y	M	D			14. Discharge record	
				Y	M	D			15. Discharge record	
				Y	M	D			16. Discharge record	
				Y	M	D			17. Discharge record	
				Y	M	D			18. Discharge record	
				Y	M	D			19. Discharge record	
				Y	M	D			20. Discharge record	
				Y	M	D			21. Discharge record	
				Y	M	D			22. Discharge record	
				Y	M	D			23. Discharge record	
				Y	M	D			24. Discharge record	
				Y	M	D			25. Discharge record	
				Y	M	D			26. Discharge record	
				Y	M	D			27. Discharge record	
				Y	M	D			28. Discharge record	
				Y	M	D			29. Discharge record	
				Y	M	D			30. Discharge record	
				Y	M	D			31. Discharge record	
				Y	M	D			32. Discharge record	
				Y	M	D			33. Discharge record	
				Y	M	D			34. Discharge record	
				Y	M	D			35. Discharge record	
				Y	M	D			36. Discharge record	
				Y	M	D			37. Discharge record	
				Y	M	D			38. Discharge record	
				Y	M	D			39. Discharge record	
				Y	M	D			40. Discharge record	
				Y	M	D			41. Discharge record	
				Y	M	D			42. Discharge record	
				Y	M	D			43. Discharge record	
				Y	M	D			44. Discharge record	
				Y	M	D			45. Discharge record	
				Y	M	D			46. Discharge record	
				Y	M	D			47. Discharge record	
				Y	M	D			48. Discharge record	
				Y	M	D			49. Discharge record	
				Y	M	D			50. Discharge record	
				Y	M	D			51. Discharge record	
				Y	M	D			52. Discharge record	
				Y	M	D			53. Discharge record	
				Y	M	D			54. Discharge record	
				Y	M	D			55. Discharge record	
				Y	M	D			56. Discharge record	
				Y	M	D			57. Discharge record	
				Y	M	D			58. Discharge record	
				Y	M	D			59. Discharge record	
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				Y	M	D			77. Discharge record	
				Y	M	D			78. Discharge record	
				Y	M	D			79. Discharge record	
				Y	M	D			80. Discharge record	
				Y	M	D			81. Discharge record	
				Y	M	D			82. Discharge record	
				Y	M	D			83. Discharge record	
				Y	M	D			84. Discharge record	
				Y	M	D			85. Discharge record	
				Y	M	D			86. Discharge record	
				Y	M	D			87. Discharge record	
				Y	M	D			88. Discharge record	
				Y	M	D			89. Discharge record	
				Y	M	D			90. Discharge record	
				Y	M	D			91. Discharge record	
				Y	M	D			92. Discharge record	
				Y	M	D			93. Discharge record	
				Y	M	D			94. Discharge record	
				Y	M	D			95. Discharge record	
				Y	M	D			96. Discharge record	
				Y	M	D			97. Discharge record	
				Y	M	D			98. Discharge record	
				Y	M	D			99. Discharge record	
				Y	M	D			100. Discharge record	
				Y	M	D			101. Discharge record	
				Y	M	D			102. Discharge record	
				Y	M	D			103. Discharge record	
				Y	M	D			104. Discharge record	
				Y	M	D			105. Discharge record	
				Y	M	D			106. Discharge record	
				Y	M	D			107. Discharge record	
				Y	M	D			108. Discharge record	
				Y	M	D			109. Discharge record	
				Y	M	D			110. Discharge record	
				Y	M	D			111. Discharge record	
				Y	M	D			112. Discharge record	
				Y	M	D			113. Discharge record	
				Y	M	D			114. Discharge record	
				Y	M	D			115. Discharge record	
				Y	M	D			116. Discharge record	
				Y	M	D			117. Discharge record	
				Y	M	D			118. Discharge record	
				Y	M	D			119. Discharge record	
				Y	M	D			120. Discharge record	
				Y	M	D			121. Discharge record	
				Y	M	D			122. Discharge record	
				Y	M	D			123. Discharge record	
				Y	M	D			124. Discharge record	
				Y	M	D			125. Discharge record	
				Y	M	D			126. Discharge record	
				Y	M	D			127. Discharge	

case of acceleration, although the child is old and apparently retarded.

A list was made of 233 names of pupils who were over-aged or retarded in progress to the extent of a year and a half or more. At the end of the year, these pupils were definitely recommended for, and urged to attend, summer school.

Intelligence Tests.

The study was worth while and was fundamental as a basis for the classification of certain pupils, and as a starting point for other special projects. One of these was the administration of a general intelligence examination.

The Illinois Examination was given to 1604 pupils in grades three to eight, inclusive. The preparations for giving the test consisted in conducting a series of six or seven meetings with twenty-five teachers. These teachers, two or three from each of the various school buildings, were trained as "building leaders" and were instructed in the giving, scoring and interpretation of the test.

When the test had been given, the corrected papers and class records were sent to the office for final tabulation. Within two weeks after the test was given, the results, interpretations and recommendations were presented to the superintendent.

From the final tabulations, the following condensed table was made.

AGE-GRADE		STATISTICS					
Young	Old or Overaged	1B	1A	2B	2A	3B	3A
	2.6	..	..	..	..	..	..
	2.0	..	..	..	..	..	1
	1.6	..	..	..	..	..	..
	1.0	2	1	..	1	1	1
	0.6	30	17	12	13	17	14
Normal		86	111	39	76	36	38
	0.6	39	82	57	54	23	42
	1.0	18	24	43	42	19	16
	1.6	11	13	16	22	4	14
	2.0	4	25	8	10	3	11
	2.6	2	4	1	1	2	1
	3.0	..	..	1	1	..	..
	3.6	1	2	1	2	1	..
	4.0	..	..	..	..	..	..
	4.6	..	..	..	..	..	..
	5.0	..	..	..	..	..	..
	5.6	..	..	..	..	..	..
	6.0	..	..	..	..	..	..
	6.6	..	..	..	..	..	1

This table is to be read as follows: In the five A grade 2 pupils are one year and a half under age or young for their grade; 4 are one year young; 9 are one-half year young; 26 are normal in age for their

Classification and scores

	Classification and scores	Virginia		Per Cents	
		Totals	Virginia	Illinois	Illinois
Genius	140 or above	12	.8	1.	
Very Superior	125-139	61	3.8	6.	
Superior	115-124	161	10.0	13.	
Normal	85-114	1055	65.5	60.	
Dull	75-84	205	12.8	13.	
Borderline	60-74	89	5.8	6.	
Feeble-minded	59 or below	21	1.3	1.	
Totals		1604	100.0	100.0	

Probably the most important fact brought out by this tabulation is the normal distribution of scores made by these pupils. It shows approxi-

Report of Absence and Truancy from		School	Grade	for the week ending Friday		10
Last Week	Month	Monday	Tuesday	Wednesday	Thursday	Friday
Name	Sept 1920					
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						
Name						
Address						
Class						

8. REPORT OF ABSENCES

In the spaces below, list the names of the pupils who:	
are new to the system this month [1b]	From: (City, town or country school)
were received by transfer this month [1c]	From: (School, room and grade)
were re-entered this month [1d]	From: (Former school, room and grade)
were lost by transfer this month [1e]	To: (School, room and grade)
were dropped permanently this month [1f]	Because: (State reason)

this test. The director recommended that the superior pupils should be placed finally in rooms and grades where they may attain their limits of accomplishments and that the sub-normal pupils should be placed finally in rooms and grades wherein the course of study does not require of them accomplishments far in advance of their capabilities.

The next step after the general examination was to give a number of Binet-Simon tests. One hundred seventy-six pupils of grades three B to six B, inclusive, who, according to the Age-Grade-Progress study, mentioned above, were over-aged or made slow progress by one year and a half; and who also had fallen below a score of 85 in the Illinois Examination, were given individual psychological tests.

Of this number 64 children were found to have a Binet-Simon "I. Q." of less than 85. These are the dull, retarded, or backward children who cause such a drag upon the class progress and upon the teachers' energies. They are the pupils who cannot keep up with normal progress and therefore should be handled in special rooms.

Recommendations, based upon the results of the Illinois Examination, the age-grade-progress study and the Binet-Simon tests, outlined the need for: Four special rooms to accommodate from 50 to 60 pupils who could be classed as sub-normal; two rooms to accommodate 25 to 35 pupils of whom special study should be made; and three rooms to accommodate about 60 pupils who are dull and retarded.

The booklets of the Illinois General "Intelligence" Examination and the Binet-Simon tests, and other records, were then placed in the individual pupil folder file. This system of filing the pupils' records was started at the beginning of the year. Between seven and eight thousand pupils, present and past, are represented in this folder system. Each folder contains all available records of the respective pupil. We hope to have in this folder system complete data of each child consisting of academic, attendance, medical, dental, and social records, "intelligence" and achievement tests and "personality estimates." Cards, sheets, and test pamphlets, from many drawers and files have been assembled into this centralized file.

(Concluded on Page 141)



I. W. FREY SCHOOL, SPRINGFIELD, OHIO. O. D. Howard, Architect, Columbus, Ohio.

New School Buildings at Springfield, Ohio

Supt. O. J. Mathias, Desloge, Mo.

Early in 1920 the board of education of Springfield, Ohio, felt a pressing need for remodeling old and the construction of new buildings.

The question of location and kind of buildings to be constructed in various localities, taking into consideration the character of the future growth of the city, made a survey of conditions absolutely necessary. The survey report was prepared and submitted to the board of education by the superintendent of schools and the architect, together with an estimate of the probable cost of remodeling and construction of new buildings to take care of present and immediate future needs. The report recommended the expenditure of approximately one million dollars. The board placed this bond issue intelligently before the public in 1920 and it carried by a large majority.

Approximately \$112,000 was spent on remodeling of old buildings.

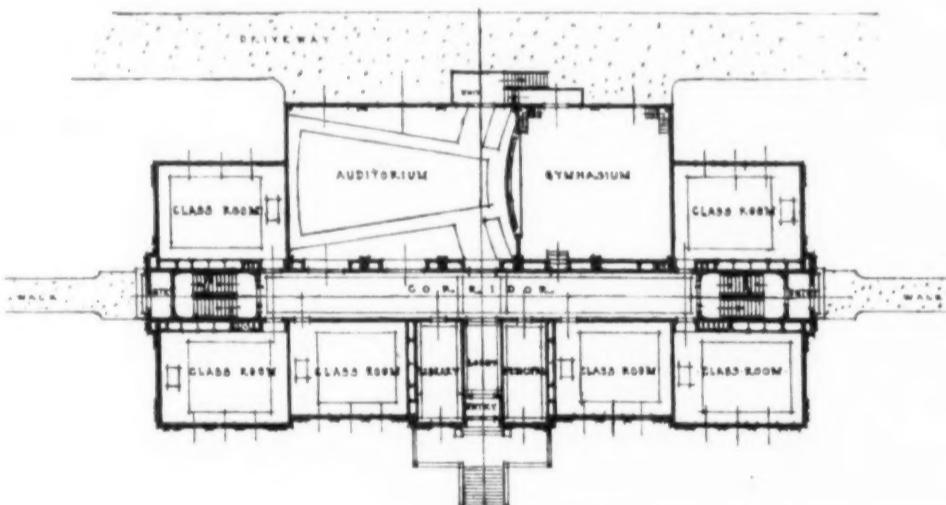
The first building to be constructed under the program was the Snyder Park junior high school, which contains eighteen rooms, a large

gymnasium, with spectators' space for approximately four hundred people, together with necessary toilet, shower and locker rooms.

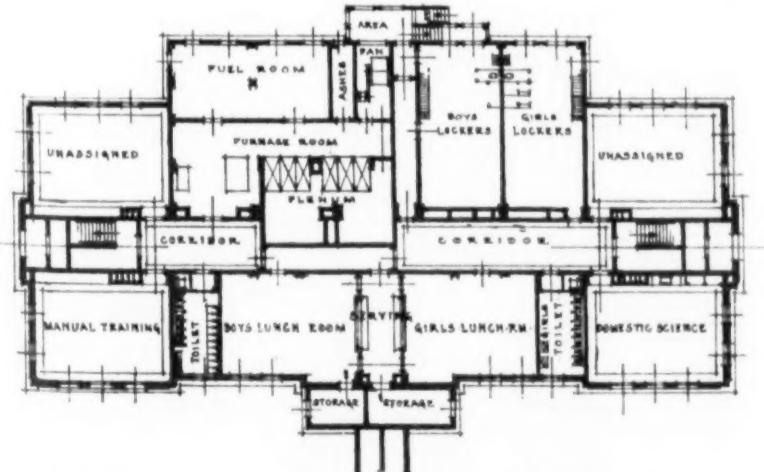
On the first floor is located an auditorium with a good size stage and dressing rooms. The

auditorium has a seating capacity, exclusive of the stage, of approximately 750 people.

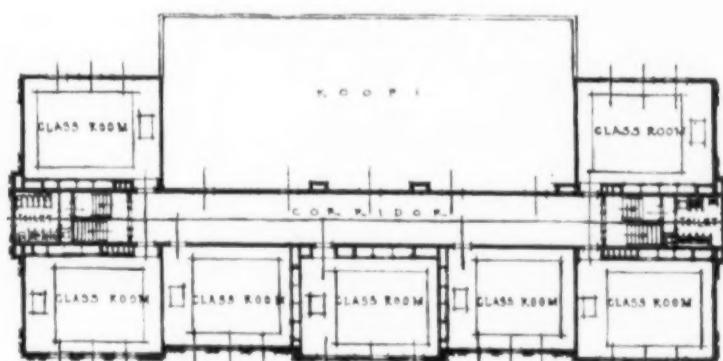
This building has been so arranged that extensive additions can be made in the future at a minimum expense.



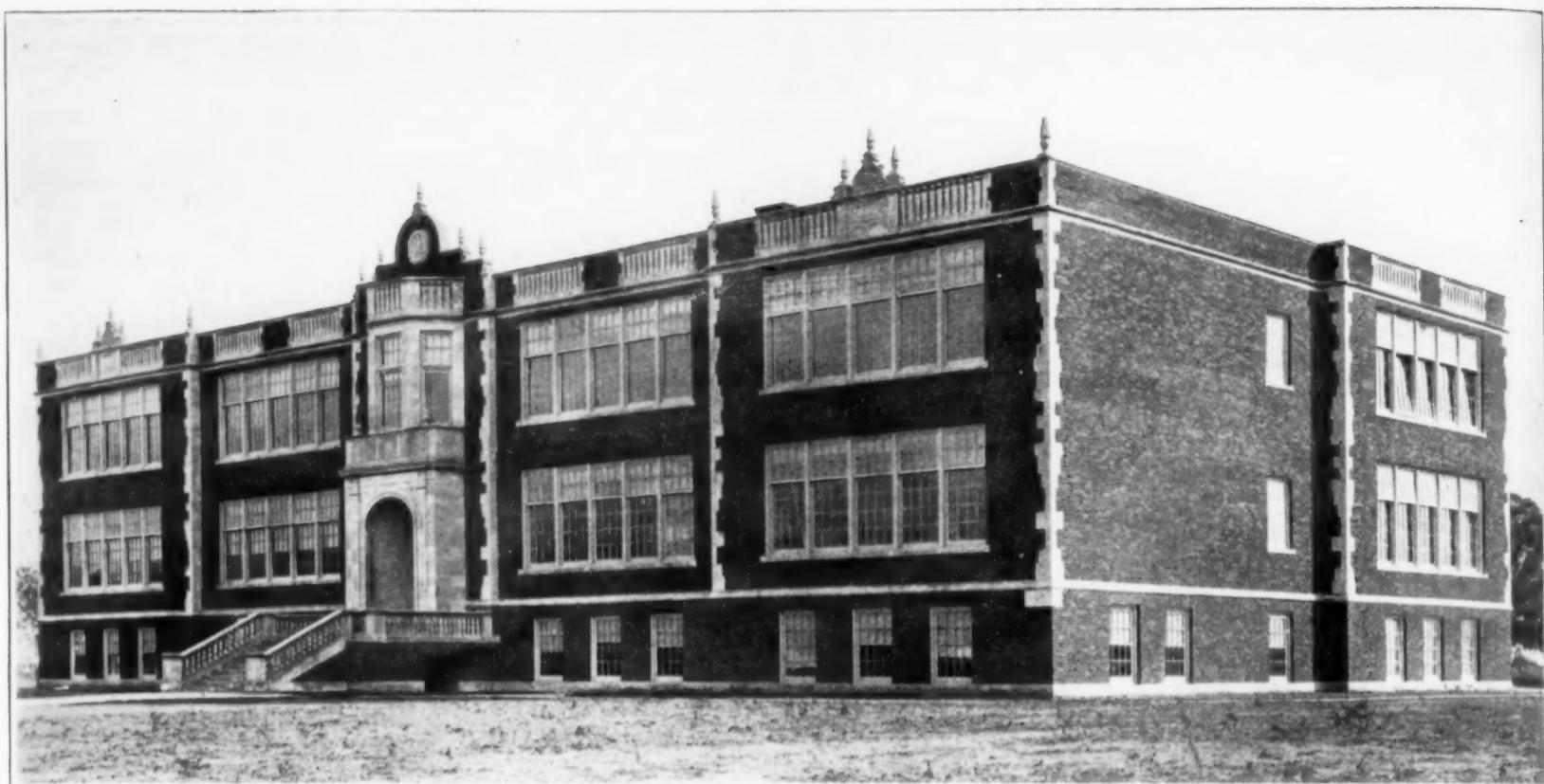
FIRST FLOOR PLAN, I. WARD FREY SCHOOL, SPRINGFIELD, OHIO. O. D. Howard, Architect.



BASEMENT PLAN, I. WARD FREY SCHOOL, SPRINGFIELD, OHIO.



SECOND FLOOR PLAN, I. WARD FREY SCHOOL, SPRINGFIELD, OHIO. O. D. Howard, Architect.



HENRY L. SCHAEFER GRADE SCHOOL, SPRINGFIELD, OHIO. O. D. Howard, Architect, Columbus, Ohio.

This building cost complete including site, grading, walks, drives, and equipment ready for occupancy approximately \$250,000.

The next building to be constructed under this program was the Henry L. Schaefer junior high school on Burnett Road. This building contains sixteen classrooms, a combination gymnasium and auditorium, using the stage as the gymnasium, fourteen special rooms. It was built complete, including site, grading, walks, drives and equipment for approximately \$186,000.

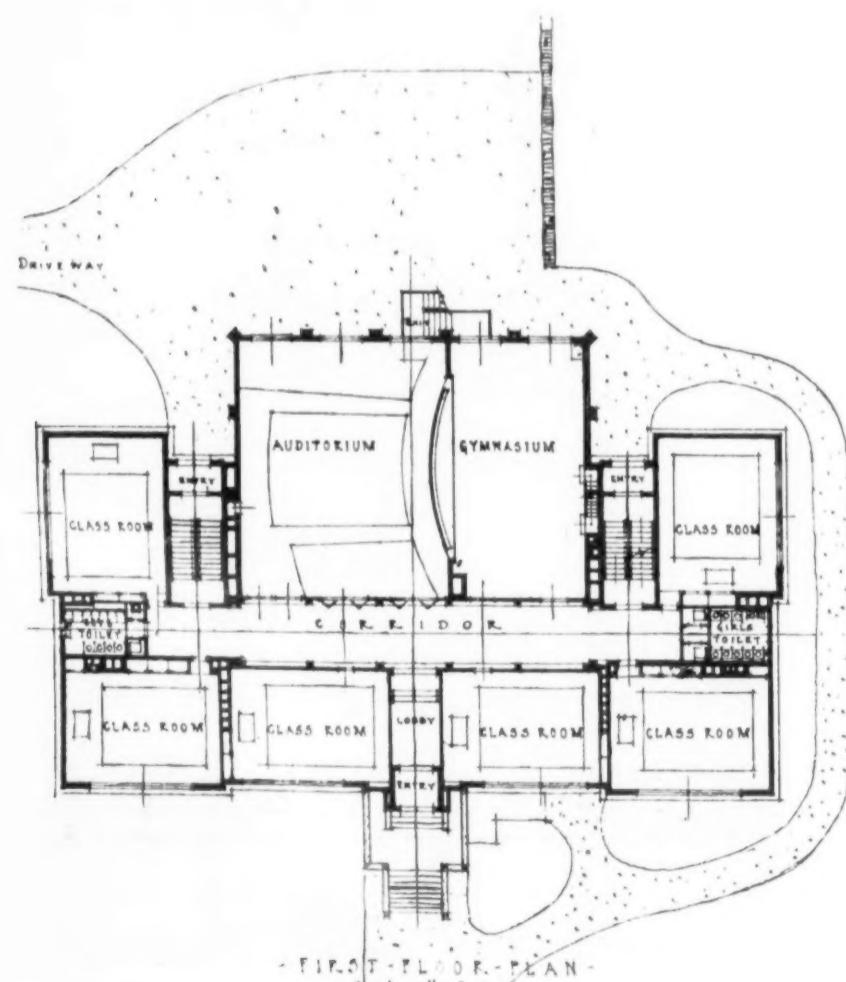
The total cost of this building including site, grading, walks, drives and equipment complete ready for occupancy, was approximately \$180,000.

The next building which was constructed under this program was the I. Ward Frey school located on Auburn Avenue. This building contains seventeen classrooms, a combination gymnasium and auditorium, using the stage as the gymnasium, fourteen special rooms. It was built complete, including site, grading, walks, drives and equipment for approximately \$186,000.

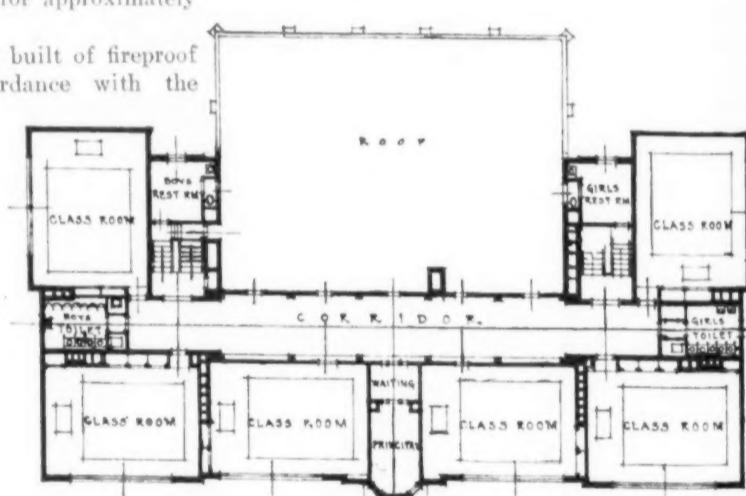
All of these buildings were built of fireproof construction in strict accordance with the

State of Ohio building code and were built at a time when prices were at their highest peak shortly after the war, and when it was very difficult to get contractors to assume contracts at any price.

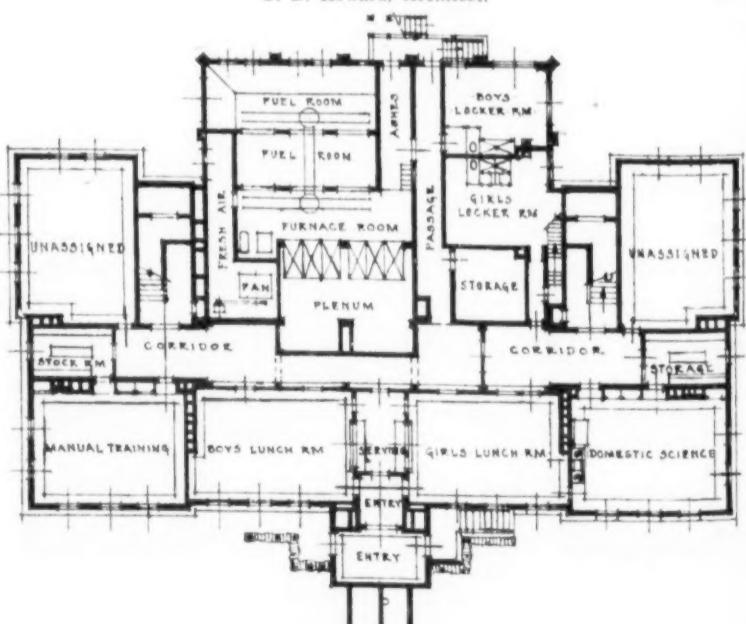
These same buildings today, under present prices, could be built a great deal cheaper.



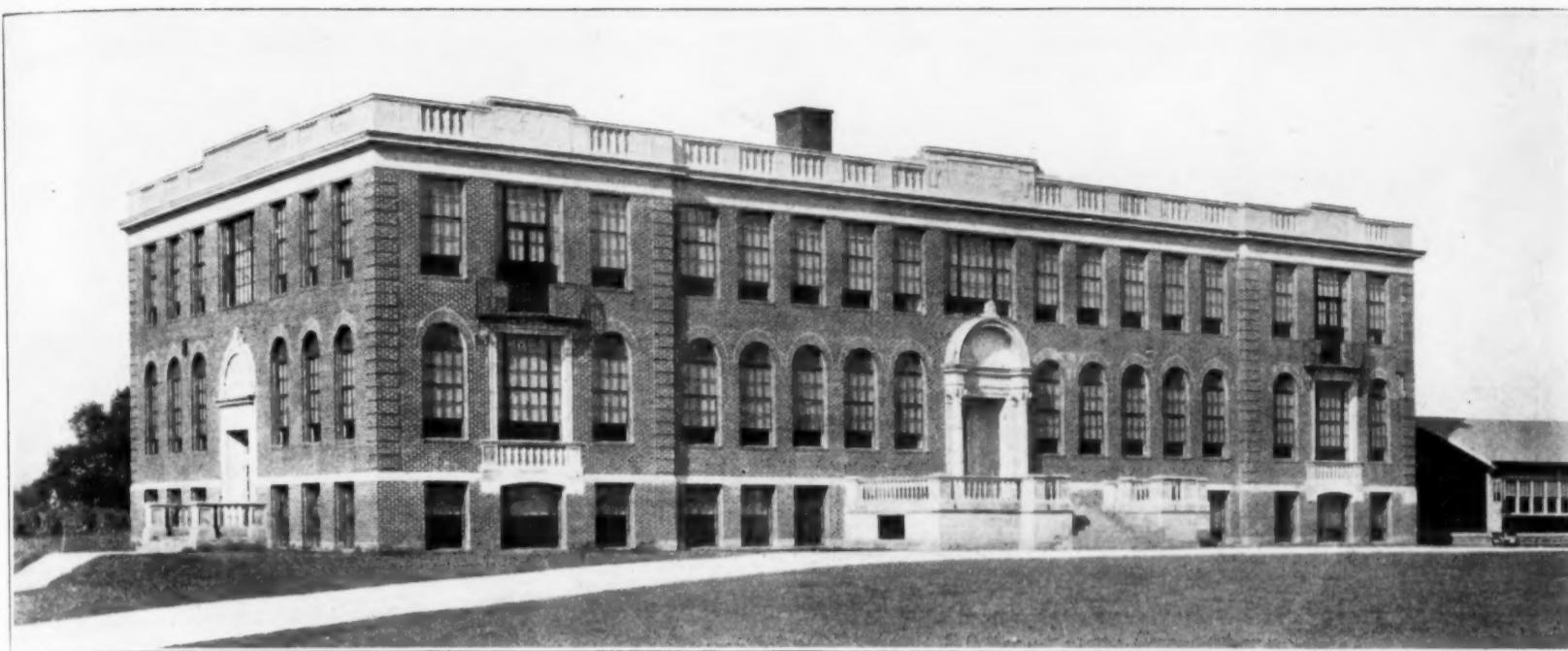
FIRST FLOOR PLAN, HENRY L. SCHAEFER SCHOOL, SPRINGFIELD, OHIO.
O. D. Howard, Architect, Columbus.



SECOND FLOOR PLAN, HENRY L. SCHAEFER SCHOOL, SPRINGFIELD, OHIO.
O. D. Howard, Architect.



BASEMENT PLAN, GRADE SCHOOL BUILDING, BURNETT ROAD,
SPRINGFIELD, OHIO.



SNYDER PARK SCHOOL, SPRINGFIELD, OHIO. O. D. Howard, Architect, Columbus, Ohio.

EQUITY IN SCHOOL TAXATION.

"Put justice and equality into the tax system and the schools will have all the money they need" is a statement made by Senator Frederick M. Davenport of New York and employed as a slogan by the Public Education Association of Philadelphia.

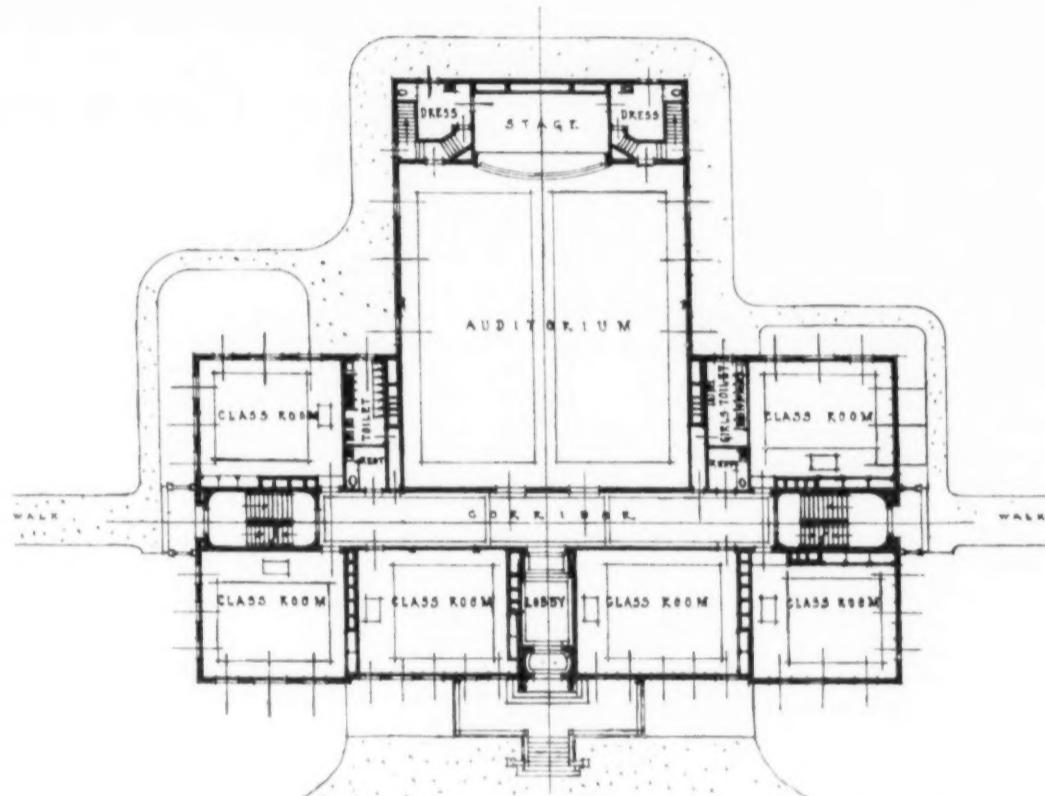
In discussing the subject further before a Pennsylvania audience the senator also said: "The average man is willing to pay if he knows his neighbor pays proportionately. Pennsylvania is under-taxed—not over-taxed. There is nothing elastic in Pennsylvania's system of taxation. It takes no account of real ability to pay.

New York gets \$40,000,000 a year from manufacturing corporations; Pennsylvania gets nothing. The corporation tax should be based on business profits—not on capital stock, which is no index of ability to pay.

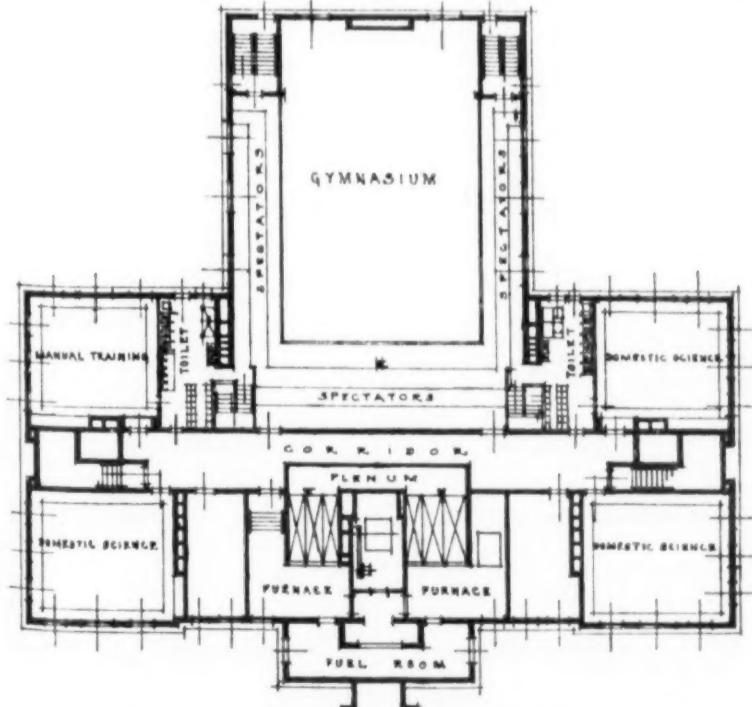
New York gets \$75,000,000 a year; New York schools cost \$188,000,000 a year, of which the state contributes \$35,000,000.

A four per cent or five per cent net profits tax on manufacturers, with a very low personal income rate will produce \$50,000,000 in Pennsylvania. After the constitutional amendment permitting a graded inheritance tax becomes

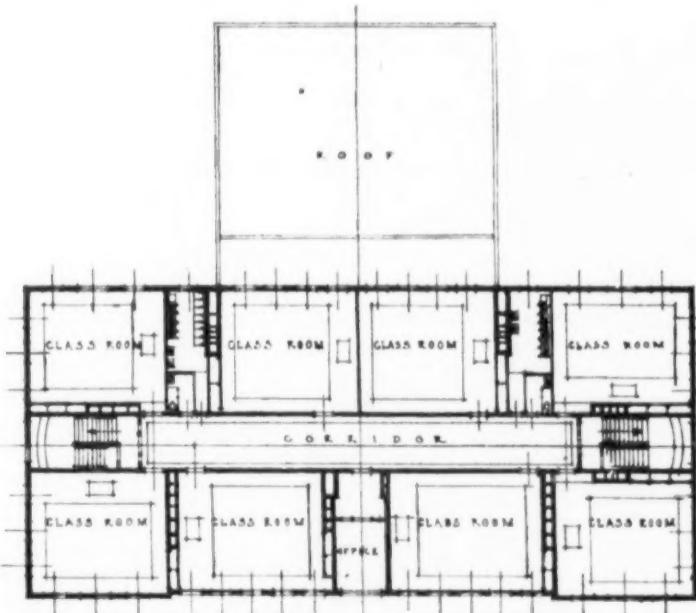
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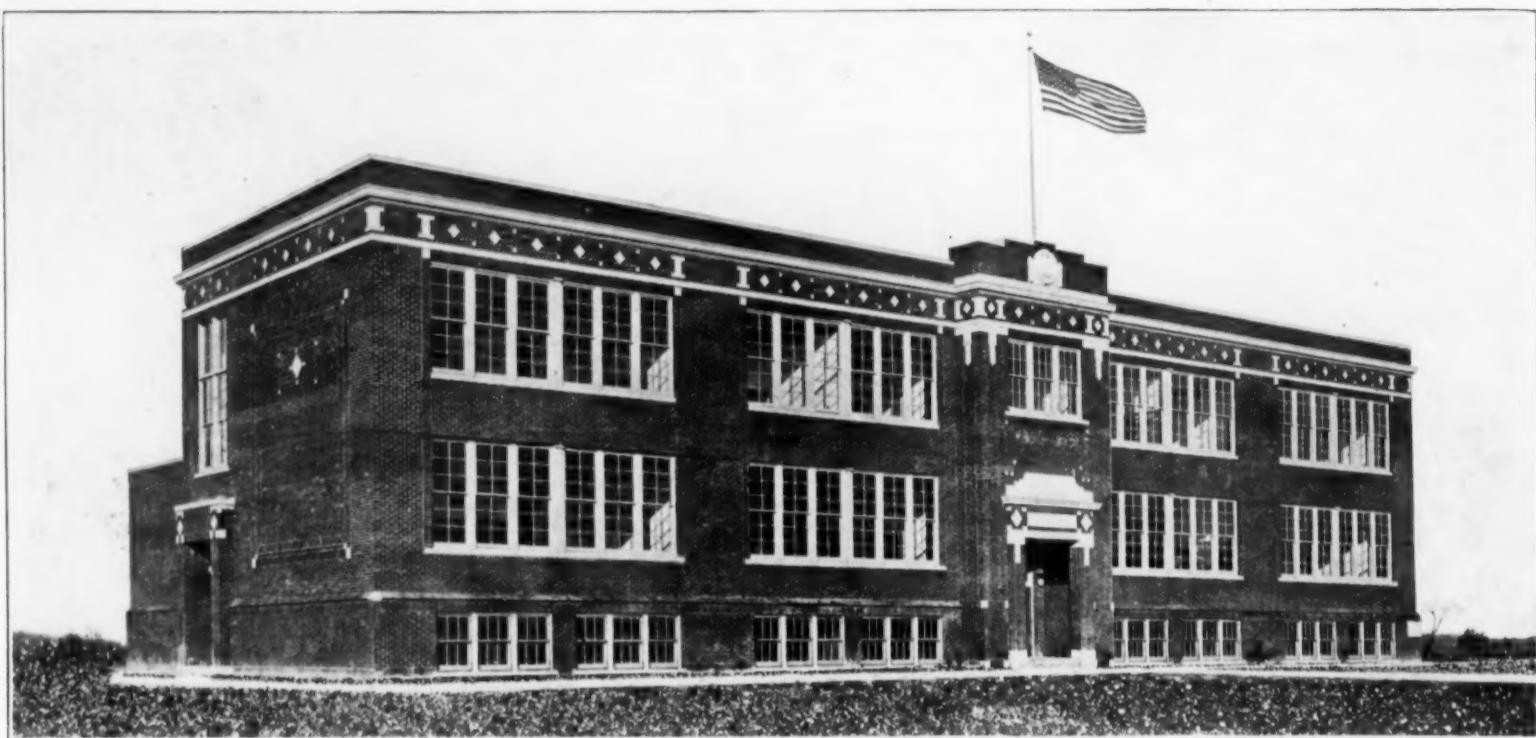
FIRST FLOOR PLAN, SNYDER PARK SCHOOL, SPRINGFIELD, OHIO. O. D. Howard, Architect.



BASEMENT PLAN, SNYDER PARK SCHOOL, SPRINGFIELD, OHIO.



SECOND FLOOR PLAN, SNYDER PARK SCHOOL, SPRINGFIELD, OHIO.



WALLED LAKE CONSOLIDATED SCHOOL, DETROIT, MICH.

The Walled Lake Consolidated School

Byron E. Mills, Architect, Detroit, Mich.

The Walled Lake consolidated school recently completed for School District No. 1 at Walled Lake, Michigan, is a combined grade and high school and is one of the first schools to be erected in Michigan under the recently enacted consolidated school act.

The desire of five rural school districts in the vicinity of Walled Lake to offer their children the best possible high school education, without sending them nearly ten miles to one of the neighboring schools, led to the erection of this most interesting and economical type of school building in which is centralized the administration of their school systems.

The building is three stories in height with the first and second story 21 feet in the clear and the basement 9 feet. A glance at the plans of the Walled Lake school will demonstrate the desires of the school authorities to offer a well rounded course of study. The building will accommodate a school of 400 boys and girls, in which a portion of the student body is preparing for college, but in which the majority will enter immediately some gainful occupation.

The building is also intended to serve as a center for community activities and its auditorium and gymnasium have been planned with that end in view. The plan of the building is particularly compact and well balanced. The main entrance is centrally located at the front of the building, leads directly to the main corridor running the full length of the building and terminating in stairways and entrances at either end.

The exterior is of a pleasant, restrained design in pressed red brick of rough texture and gray artificial stone trimmings. The structural design of this building was novel in that a radical departure was made from the old set standards which effected a decided saving. The face brick of the exterior walls was backed up with heavy interlocking tile which enclosed a steel skeleton framework similar to the familiar sky-scraper construction. Upon this frame work are carried the reinforced concrete and tile floors of the corridors and entrances and the wood floors of the remainder of the building, the

latter having been especially treated with fire stops and fireproof sound deadening quilt.

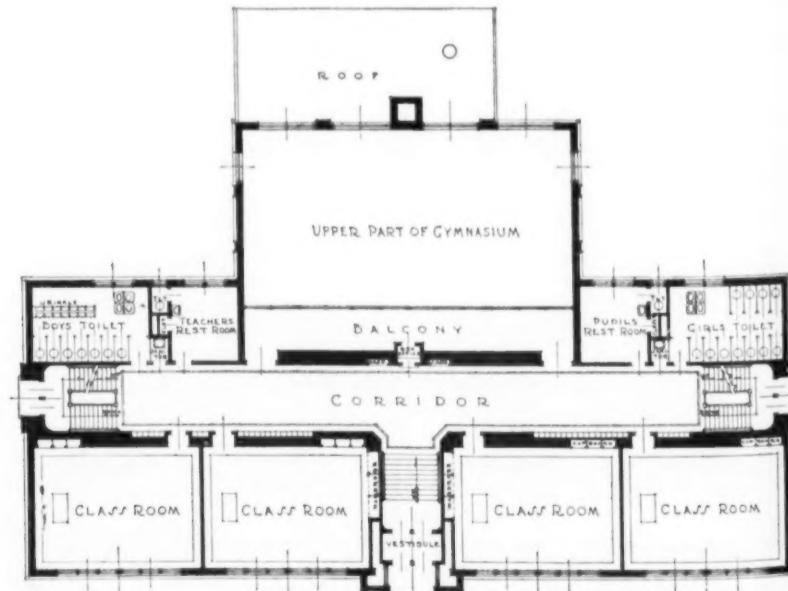
The corridors are made entirely fireproof by being enclosed with gypsum partitions while the remainder of the walls and ceilings are plastered over metal lath. Red gum, finished in a cerasian walnut rubbed finish, is used for the trim and doors in the corridors of first and second stories, auditorium and superintendent's offices and yellow pine finished with a dark brown stain is used in the classrooms and elsewhere. All the stairways are of steel and concrete construction and are absolutely fireproof.

The interior of the gymnasium and basement corridor walls are faced with a smooth glazed light-buff brick making a very attractive appearance. Red composition floors with block borders and base are used for the floor and stairs of main entrance, first and second-story corridors and toilet rooms.

These floors besides being good looking are sanitary, resilient and noiseless and are absolutely guaranteed against cracking. The classroom, gymnasium and auditorium floors are of



BASEMENT PLAN, WALLED LAKE CONSOLIDATED SCHOOL, DETROIT, MICH.
B. E. Mills, Architect.



FIRST FLOOR PLAN, WALLED LAKE CONSOLIDATED SCHOOL, DETROIT, MICH.
B. E. Mills, Architect.

maple all smoothly sanded and oiled. The blackboards are of genuine slate and over the tops of same extends a 12 inch band of cork tack board permitting the display of papers, etc., without injuring the wood trim.

Fire Risk Reduced to Minimum.

Both the lighting and bell wiring systems throughout the building are installed in rigid iron conduit thus reducing the fire hazard to the minimum. Call bells are placed in each room with gongs in the corridors and exterior entrances all of which are centrally controlled from an operating board in the auditorium. Each corridor has a large electrically operated factory type of horn operated by break glass fire stations which act as a fire signal.

The locker system is used for all grades except the two lower ones, the latter having the built-in folding door type of wardrobes. The steel double tier lockers are set flush along the walls of the first and second story corridors and rest upon the composition base and concrete curb. Steel lockers are also used in the boys' and girls' locker rooms in the basement.

The plumbing equipment and fixtures are of the most modern type, with valve operated siphon jet closets and stall type porcelain urinals arranged in batteries. The fixtures installed are of sufficient number to serve the capacity of the school for the immediate future and provision has been made so that two additional toilet rooms can be added later on the second floor, using the same soil stacks should the occasion demand, later. Water is supplied by a 75 ft. deep well operated by an electrically driven automatic, heavy duty deep well pump which is connected to a large storage tank. Two sump pumps are located in the building to handle the basement drainage. Slop sinks are conveniently located throughout the building for janitor's use.

Fire hose racks are prominently placed on each floor not only for emergencies but also for impressing children with the protection against fire which they give. A complete hot water system provides hot water for the entire building. A domestic gas plant provides fuel gas for the domestic science room and chemical laboratory. The sewerage is disposed of by means of two large septic tanks located at the rear of the building.

The heating system is a combined direct and indirect steam blast system. The fresh air is drawn in through metal grilles located on the side walls of the front entrance, free from dust, leaves or smoke, and passes through tempering coils and humidifier before it is forced by the fan into the various rooms. Each room has direct radiation for supplementary heat after school hours and during very cold weather. The exhaust flues are so arranged that the air



AUDITORIUM, LOOKING TOWARDS STAGE, WALLED LAKE CONSOLIDATED SCHOOL, NEAR DETROIT, MICH.

may be re-circulated when school is not in session. The heat is supplied by two large Hart & Crouse, double grate, outside header type of smokeless boilers arranged with all connections left ready so that a third boiler may be added later to take care of future additions. The entire heating system is automatically controlled by thermostats placed in each room.

How Basement is Utilized.

In the basement, which is well lighted, are placed the manual training and domestic science rooms and a laboratory for the agriculture classes. The otherwise waste space below the front entrance is utilized for the fan and tempering apparatus. At the rear of the basement is located the gymnasium, a room 40 ft. by 60 ft. which extends up through the first story and has a ceiling height of 22 feet. Along the corridor side of the gymnasium is located a visitors' gallery which is accessible from the first floor.

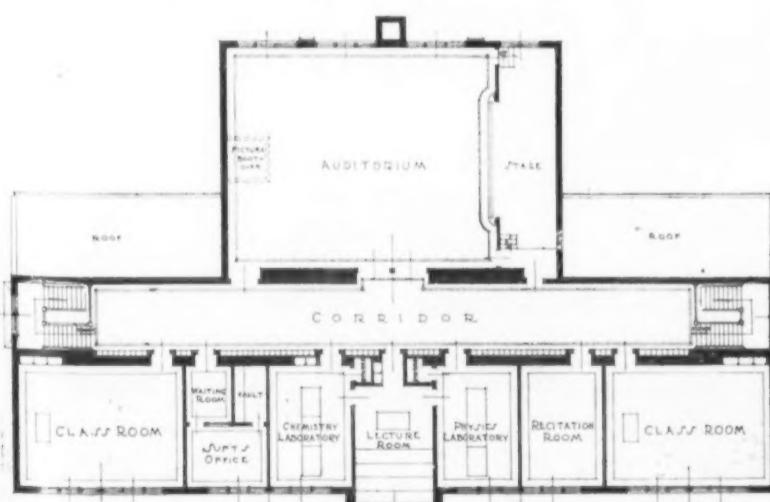
On either side of the gymnasium are located the boys' and girls' shower, locker and toilet rooms, together with a small office for the physical instructor. The shower and dressing room partitions in the girls' shower room are of steel with a baked on olive green enamel finish with white duck curtains at the entries. All shower,

locker and toilet rooms are ventilated by means of a separate exhaust fan discharging the foul air directly through ventilators on the roof. The boiler and fuel rooms are at the extreme rear of the building and are wholly fireproof including the roof of same and are cut off from the remainder of the building by a fire door.

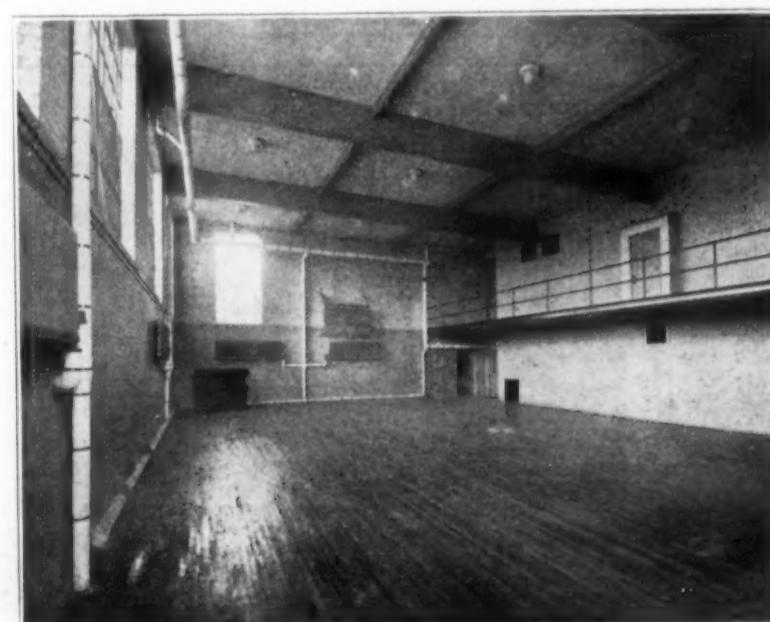
The boiler room has an outside entry and an area with steel sidewalk doors over same for ash removal. The fuel room is of ample proportions to store the winter's supply of coal which can be put in through coal chutes in the side walls or man hole in the roof.

On the first floor are four classrooms with a seating capacity of 40 to 45 pupils each. Each classroom is provided with a built in bookcase with supply cupboard below and a teacher's closet adjoining. The gallery at the rear of the main corridor affords a fine view of the gymnasium. Opposite the main entrance a small ticket office was worked in with cases on either side for the display of trophies or the students work. At either end of the building are rest rooms for the teachers and pupils off of which is a private toilet and coat closet. The main toilets are located on the first floor near the stairways making the same easily accessible from all floors.

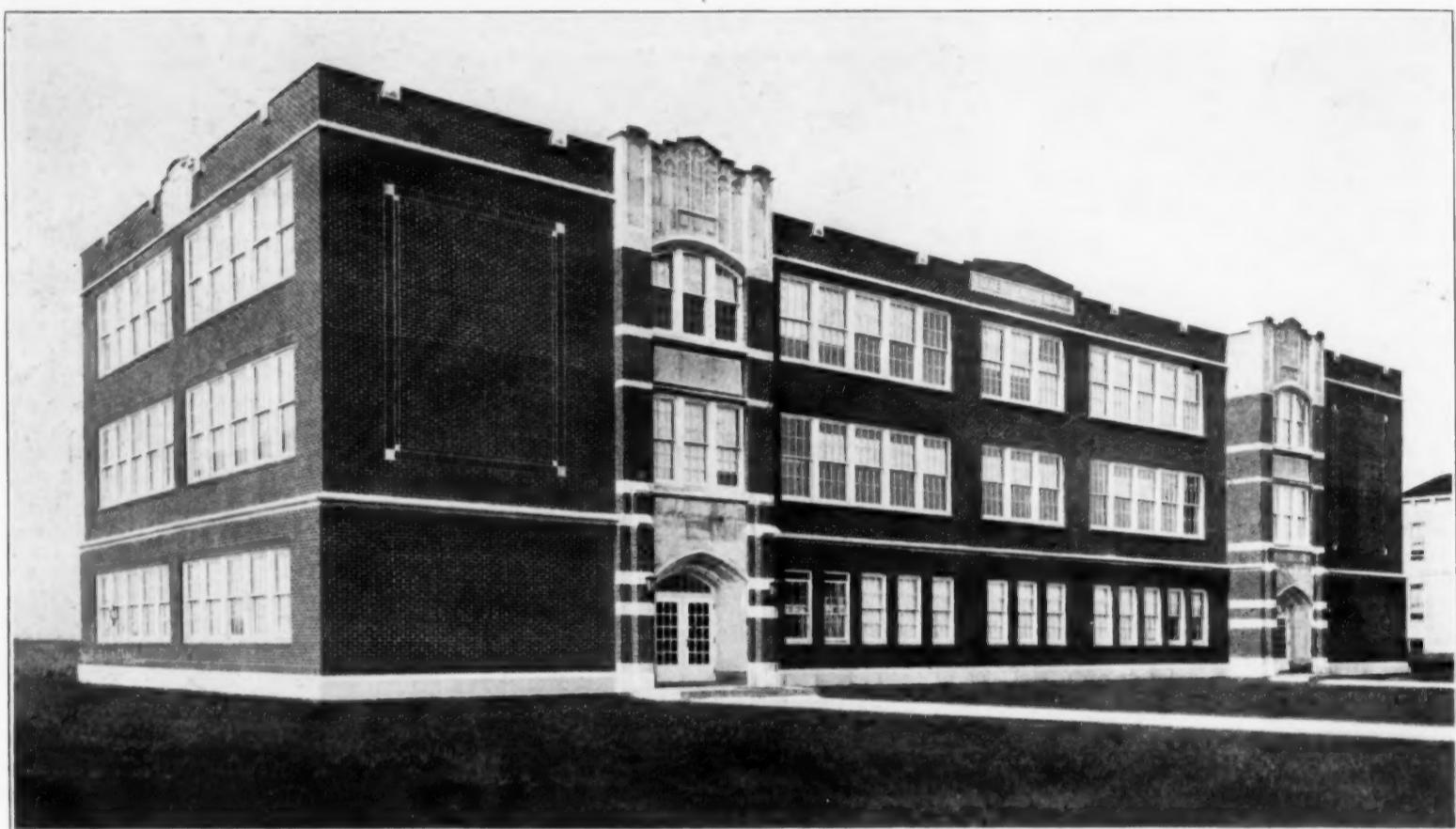
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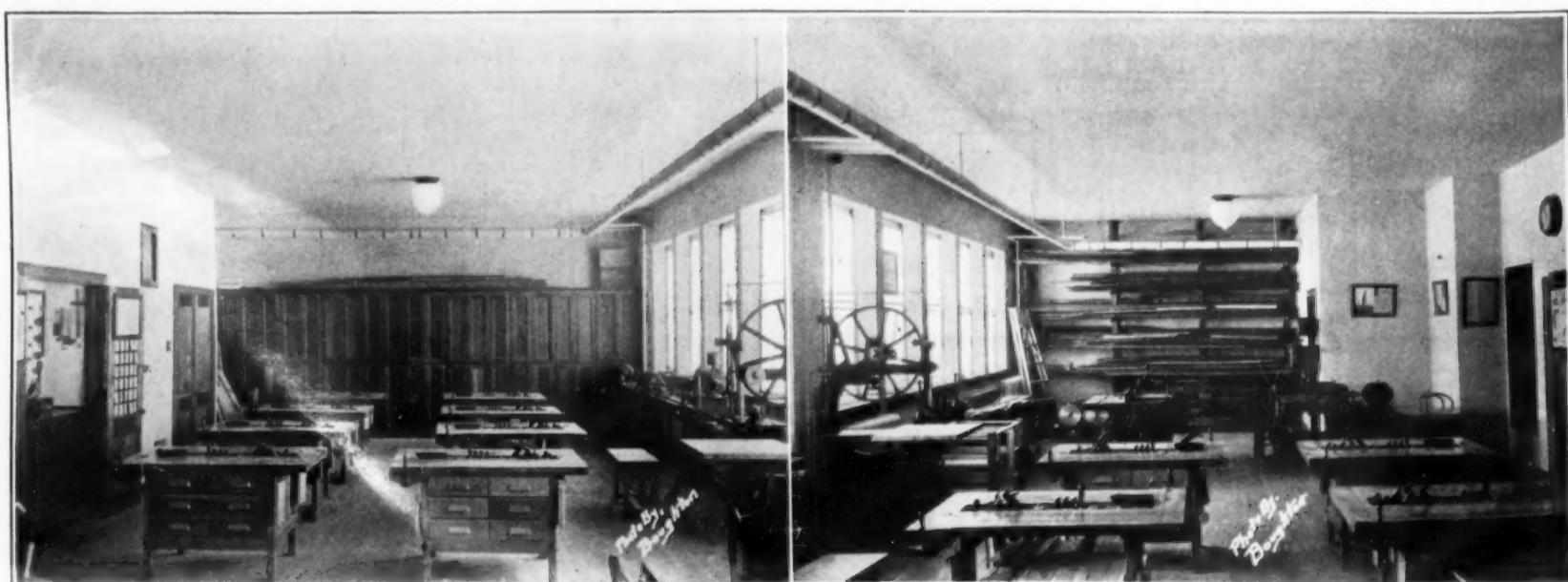
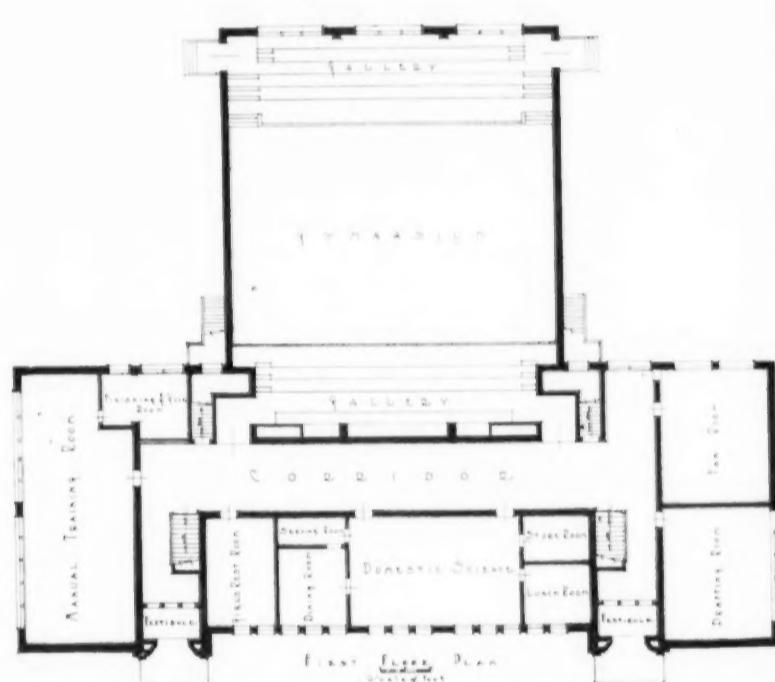
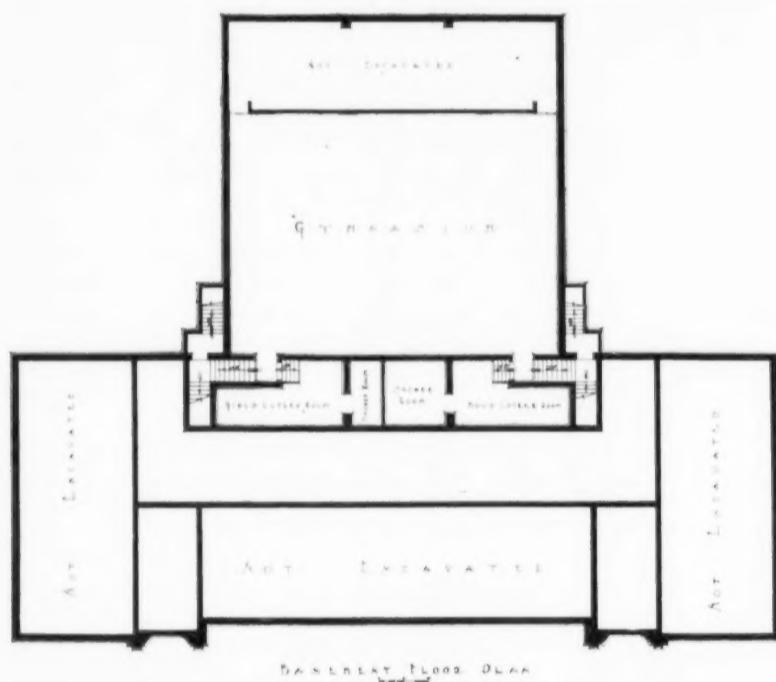
SECOND FLOOR PLAN, WALLED LAKE CONSOLIDATED SCHOOL, NEAR DETROIT, MICH. B. E. Mills, Architect.



GYMNASIUM, WALLED LAKE CONSOLIDATED SCHOOL, NEAR DETROIT, MICH.



HIGH SCHOOL, AUGUSTA, KANSAS. Lorentz Schmidt & Co., Architects, Wichita, Kans.



SHOPS IN THE HIGH SCHOOL, AUGUSTA, KANS. Lorentz Schmidt & Co., Architects, Wichita, Kans.

G. H.
The
building
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cation.

The structure with a fireplace grade and the below "lay on". From the there is rear the to the vantage point it is possible although ground

The school has
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in making
August
gymnasium

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Access to the first entrance made it possible for the convenience of students to use the gymnasium more frequently.

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**THE AUGUSTA HIGH SCHOOL BUILDING,
AUGUSTA, KANSAS.**

G. H. Marshall, Superintendent of Schools.

The Augusta, Kansas, senior high school building was completed September 1, 1922. It was planned by Lorentz Schmidt of Wichita, Kansas, who for a number of years past has been the architect of the Wichita board of education.

The Augusta high school is a three-story structure, built of variegated mat-face brick with a trim of Carthage stone. It is completely fireproof. No part of the building is below grade with the exception of the gymnasium, and this, for the main part, is only very slightly below grade, as advantage was taken of the "Jay of the land," which is rather peculiar. From the front of the building to the eastward there is a gentle slope to the street, but to the rear the land drops abruptly thirty feet or more to the "bottoms" of the Whitewater river. Advantage was also taken of this peculiar formation in the placing of the heating plant so that it is possible to dump coal through the roof, although the building is completely above ground when seen from the west.

The main features of the Augusta high school building are without doubt its auditorium and gymnasium. The board of education felt that because of the utter lack of these facilities in the community, no expense should be spared in making them adequate. The result is that Augusta has a high school auditorium and a gymnasium second to none.

The auditorium will seat eight hundred people. The lighting, both natural and artificial, is all that could be desired. The acoustical treatment of the ceiling makes the sound qualities almost perfect. The stage, which is of ample size, is provided with all the devices for modern lighting effects and is equipped with the regulation curtains and settings. Two large dressing rooms have direct connection with the stage, and each dressing room has a store room above.

Access to the gymnasium is ordinarily from the first floor of the building, but two outside entrances, for girls and boys respectively, make it possible to use the gymnasium without entering the main building at all. This is especially convenient for after-school practices, and for students of other buildings who frequently use the gymnasium. The two balconies will seat more than five hundred people.

The peculiar soil formation and the fact that the gymnasium is partly under ground made it necessary to take every precaution to keep out ground water. The concrete floor and the



SCHOOL ADMINISTRATION BUILDING, FORT SMITH, ARK.

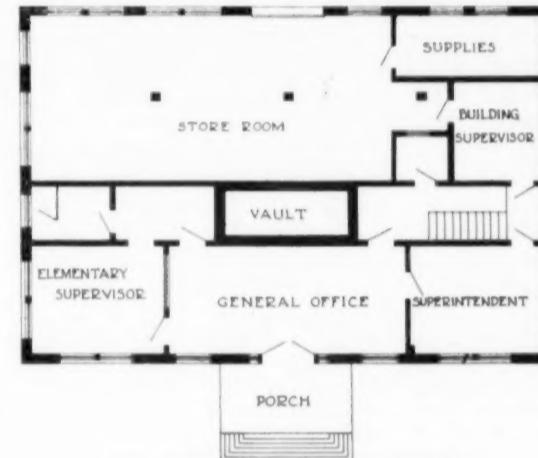
side walls up to a height of eighteen inches were waterproofed and the whole gymnasium drained by means of tile laid below the footing level on the outside. A floor of twelve-inch planks was then laid and the maple floor placed on top of this false floor.

The building is provided with recessed lockers. Each classroom has its teacher's closet, provided with shelves for materials and hooks for wraps. Hot and cold water, gas, and electricity are accessible in all laboratories both at the general counters and sinks and at the individual tables.

A large direct current generator takes care of all needs for direct current electricity. An electric master clock with twelve subsidiary clocks takes care of the time and the ringing of all signal bells.

Apparatus rooms with built-in cupboards are in connection with every laboratory, while a fitting room, pantry, and serving are provided for the domestic art and domestic science rooms respectively.

The total cost of the building with its equipment is almost exactly \$200,000. About \$23,000 of this amount is represented by equipment. There is absolutely no waste space in the building. The halls, while of good width, are none too wide and give the building an appearance which could never be had were they narrower.



FIRST FLOOR, FORT SMITH SCHOOL ADMINISTRATION BUILDING.

A SCHOOL ADMINISTRATION BUILDING.

The school system of Fort Smith, Ark., has what many other school systems would like to have—a modern school administration building.

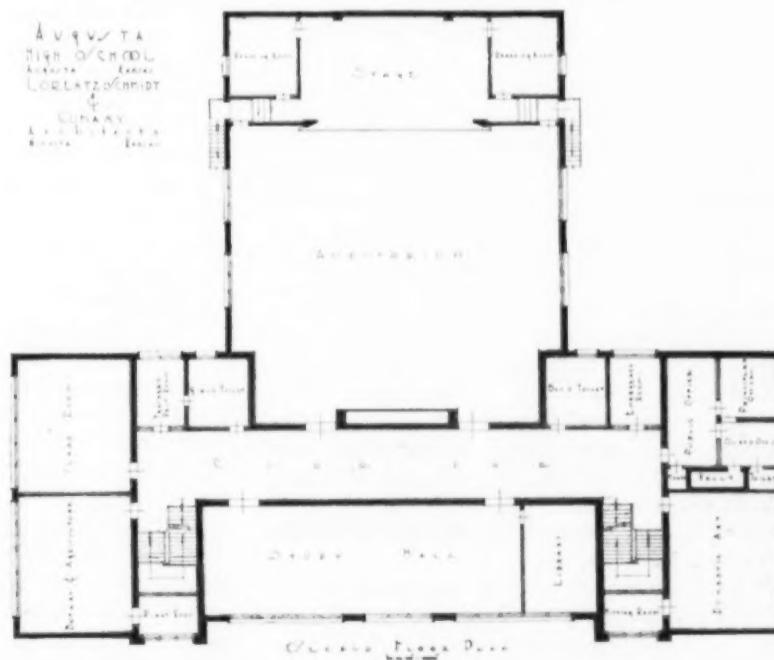
It is a two-story building with basement, dimensions 60 by 40 feet, and of brick construction. The three floor areas provide for the following:

Basement: Store room for janitor's supplies and all supplies having to do with maintenance of plant.

(Concluded on Page 146)



THIRD FLOOR PLAN, HIGH SCHOOL, AUGUSTA, KANS.
Lorentz Schmidt & Co., Architects, Wichita, Kans.



SECOND FLOOR PLAN, HIGH SCHOOL, AUGUSTA, KANS.



THE AMERICAN School Board Journal

WM. GEO. BRUCE { Editors
WM. C. BRUCE

EDITORIAL

THE PRITCHETT INCIDENT AND THE SCHOOL FINANCE SITUATION.

The struggle now waging in the several states of the United States in breaching the gap between the needs of the schools, and the tax support accorded them, has made the educational leaders somewhat sensitive to criticism on the present school situation.

Dr. Henry S. Pritchett, directing head of the Carnegie Foundation, recently ventured the belief that the services rendered by the American schools had been pyramided to an unreasonable degree and that a steadier gait in providing that service must be observed. To be more concrete, Dr. Pritchett pointed out that the cost of the schools had leaped from \$140,000,000 in 1890 to nearly \$1,000,000,000 in 1920 and that instead of teaching the fundamentals—in other words teaching fewer things—the boys and girls of the land are now taught everything from typewriting to psychology.

"The American father," says the president of the Carnegie Foundation, "assumes that the child must be kept in the public school whether he can do the work or not. The overemphasis on education, and in particular on higher education, as the sole opening for the youth of the country, has not only filled the schools with ill-assorted pupils, but has closed the minds of people to the opportunities offered by agencies other than the school."

"It is entirely possible to dissipate enormous sums of money in the name of education which serve neither to equip children with a body of knowledge nor to train their minds, nor to instruct them as to their duties and rights under the Government through which the education is furnished. The present system of education has reached its enormous expense, not wholly by reason of its efficiency, but partly by reason of its superficiality. The simple fact is that municipalities and states are finding the rising cost of their educational budget a most difficult and serious problem, and that the kind of education upon which such sums of money are being spent must be analyzed."

Here is a sweeping challenge to America's system of popular education and a severe indictment of the basic impulse that created it. Thus, a commotion was sure to follow when a distinguished educator placed himself in opposition to a situation wrought by the evolution of time and through the ideals and aspirations of many educators. Nevertheless, the two paragraphs above quoted are worthy of thoughtful consideration not only because they emanate from an eminent source but also because they possess some kernels of truth. While the criticism is the direct outcome of a prevailing condition it also follows that that criticism is less welcome at this time because of that condition. The school budgets everywhere, state and local, are either drained or strained and strenuous efforts are made to replenish them. Thus far the Pritchett indictment possesses point and application.

When the question of the country's system of popular education in its present amplified form is brought under analysis we are touching upon an evolutionary development which reflects the

American spirit in a striking manner. That spirit which preaches democracy and equality, aimed to provide an equal educational opportunity for all, hence gave to the child of humble surroundings that which otherwise would be reserved to the better conditioned. To hold that this principle is untenable is to condemn democracy itself and to undermine the splendid educational structure that has been reared for the nation.

No thoughtful educator will deny the existence of waste both as to energy and means, but the ship cannot be driven on the rocks because perchance there are minor leaks. These must be stopped wherever discovered, and to that end timely caution is in order.

We recognize that there is a type of educational leadership not beholden to local responsibility which speaks in national terms, and tends to the ultra in progressive dash and daring. These must awaken to the fact that the share which goes to education is not only dependent upon the needs of government, local and state, but finally upon the tax ability of the community and the units comprising the state.

With this limitation in mind it remains not only to watch the leakage caused through extravagant expenditures but also all unwise and wasteful expansion of the school service, and the even more wasteful diffusion of education upon barren soil.

While the Pritchett doctrine is in contradiction of the fundamental idea upon which the country's system of education has been reared, and therefore cannot be accepted at this late day, it bears some things that are worthy of serious thought and study.

WHY THE PUBLIC SCHOOLS COST MORE MONEY.

It is generally conceded that school costs have jumped by leaps and bounds during the past decade or two and that the proportion of the total tax yield, which now goes to the support of the schools, is at this time the largest in the history of the nation.

The first impulse of a critical tax paying constituency is to hold that the school administrators expend the public's money with a wasteful hand. The suggestion that the schools are dispensing more and better education than ever before has not as yet been urged with any degree of force. Educators have in a general way held that the scope of the schools has been extended, but the specific claim that education, considering quantity and quality, has never been obtained at a smaller cost since the establishment of the Republic, has not been concretely put forth.

It may not be out of place to refreshen our memory to a few outstanding facts and then apply the reasoning that if society makes greater demands upon the schools that it must also meet the greater cost. Again, we may ask ourselves whether this greater cost in one direction does not spell a lesser cost elsewhere. Let us see.

The quantity of education diffused is greater. That is conceded. The school terms have steadily been lengthened and a larger percentage of pupils has been held in the schools over a larger age period. In other words, children have been brought into the schools at an earlier age, have been given a larger school year, and a larger percentage has been kept through the higher grades and the junior and senior high schools.

The element of quantity has also been augmented through diversification, namely, through the introduction of special studies. These have been extended into the domain of art and science and various cultural branches. Commerce and industry have made their demands. The home has sought special refinements and

efficiencies at the hands of the schools. The vocational era has come upon us.

But, the school service has been carried even farther. The physical welfare of the child has become a matter of school concern. Medical examination has come upon the scene with its corrective influences. The eyes, ears and throats of children are looked after. The question of nutrition and placing the child in a teachable condition have come into play. In fact the subnormal and backward pupil receives attention in special classes.

The service of the school having been expanded to a marvellous scope it remains to ascertain whether the quality of that service is all that it ought to be. Here the answer may reasonably be made in the affirmative. Means for making the test have also been brought into use and the schoolmaster is equipped to demonstrate the quality of the school plant product as well as the quantity.

If the old time factory apprentice system has declined it is because the employer looks to the school for his skilled mechanic, if the merchant spends less time in training a clerk it is because he expects the school to supply him with promising recruits, if the household shows greater efficiency it is because the school has provided some training, if we find more red-cheeked children than anaemic children it is because the school has been serving, and if we find boys from the humble homes rise to positions of importance and usefulness it is because the school has made it possible.

All of which means that if society imposes larger duties and responsibilities upon the schools and exacting more service it must expect to pay a larger price. If it is paying more for schools it is paying less for something else. It simply needs to ask whether it is receiving all that it is paying for.

We need scarcely add that the reduced purchasing power of the dollar, or in other words, the average increased cost of labor and material increased during recent years, has added big burdens to school costs. If we have to pay more for everything that enters into life and living, why not for education?

ELIMINATING A WASTE IN HIGH SCHOOL EDUCATION.

A board of education in a western city has come to the conclusion that its high school is encumbered with a number of loafer students who ought not to be toadied along at public expense. Consequently a drastic weeding out process was applied.

At a period when the school costs are a serious problem with school administrators the question of leakage and waste comes under closer scrutiny, and the impetus which the high schools have received in recent years has turned attention to an unteachable student body found there.

Educators have in recent years referred to a class of students whose attitude is one of challenge to the teaching profession. "We dare you to teach us if you can!" is the position taken by the slacker student who goes to high school as a convenient and genteel place for killing time. This applies to girl as well as boy students.

Students of this class are not only a drag upon the school, and involve much waste energy on the part of the instructors, but their playful or indifferent conduct is apt to influence unfavorably the rest of the student body. At any rate, their presence involves a waste of school service and school funds.

In Philadelphia the question has been raised by Thomas E. Mitten, a member of the board of education, who suggests that the parents be

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held financially responsible for the extra cost involved in carrying along the laggard student.

"It costs about \$70 a term to educate a student in the high school," said Mr. Mitten. "If he fails once and has to repeat, it means a cost of \$140 to the citizens of the city. A third trial such as this boy desires means \$210. The high schools are already overcrowded and the board is pressed for money for new schools. There should be some way in which this extra expense should be borne by the student's parents."

It may not be possible under the present school laws to tax a parent for the coddling of an unwilling or unteachable high school student, but it is not impossible to find a course of action that may be in the interest of both student and school. And that course consists of the elimination of the student from the school with the wholesome counsel to parents that the corrective must be found in physical labor. The student who refuses to engage in, or is incapable of mental activity, must be placed in manual activity. That change is in his own interest and in the interest of society as a whole.

The morale of the high schools of the country may be improved to a remarkable degree by dismissing the drones and drags. Aside from the question of school costs, and the elimination of waste, there is a larger question at issue, namely, the function of the school to render the largest measure of service to those ready and capable of receiving the same.

There are boys and girls who may be coaxed or driven into an education, but it is waste of time and effort to cope with those who willfully and successfully resist the efforts of a capable and resourceful teacher. Their elimination is subject to attention.

RELIEVING SCHOOL BOARDS FROM CITY COUNCIL CONTROL.

In the states of New York and Massachusetts the question of divorcing the boards of education from the control of the municipal governments has been thrashed out with considerable thoroughness before legislative committees. The school authorities feel that they ought to have exclusive charge of the management of school affairs, and that a total separation from city council control will also free the school system from evil political influences.

The school boards in the two states named have in the past met with some unique experiences. The city administration having a voice in the affairs of the school system, it also happens that the mayor of the city or some alderman may, for political effect, publicly criticise the action of the school board.

In the average Massachusetts city the mayor has a voice in board of education deliberations and may by his voice and influence dominate the situation. In New York cities it has happened that the city authorities have tried to dictate the salaries paid to superintendents and teachers and the expenditures made for school maintenance.

The justification for this attitude is borne of the claim that the mayor and board of aldermen stand between the schools and the public, namely, keeping the school authorities within lines of economy and preventing the public from being robbed.

At Buffalo, N. Y., some months ago the city administration attempted to cut down the salary of the superintendent of schools. The case was carried to the courts with the result that a decision was obtained to the effect that the city authorities had no power to regulate salaries.

The opposition to school administrative freedom does not concede that the school board represents the people. That representation is vested in the mayor and the city council. This

attitude is expressed in the language of Ross Graves, commissioner of finance of the Buffalo, N. Y., city government when he recently commented on pending legislation designed to separate school boards and city councils:

"The board of education has absolute power to fix the salaries of its employees. The only discretion left to the elected city government is in fixing the total appropriation for the *board of education* in a given year. The Gibbs bill, now pending in Albany, would even take this power from the elected city government and would remove from the people the last vestige of control over the expenditures of an irresponsible board."

Where a school board is an appointed body it follows that the responsibility falls directly upon those making the appointment. If this be the mayor he is directly responsible to the people for the quality of the school board and for the wisdom and unwise of its actions. If those elected by the people reserve the authority of saying what the total cost of the schools shall be, it must be left to the school authorities to determine how the funds shall be expended.

Where a board of education is elected by the people, and therefore directly responsible to the people, the city council or no other municipal branch or department of government can consistently interfere. The school board is supposed to know the needs of the schools and should be left to administer them according to its own judgment.

There is only one phase of the whole controversy which does not lend itself to separate or independent action on the part of school boards, namely, that which deals with the proportion which the schools shall have out of the total tax yield.

While the schools should have all the money that may be required to conduct them efficiently and economically, there must be some regard for the needs of other branches of municipal government. The tax ability of the community is a prime consideration. It determines not only what can consistently be expended for police, fire and sanitary protection, but also what, in the light of other municipal needs, can wisely be appropriated for the schools.

MODERN SCHOOL GRADUATION EXERCISES—WHO AND WHAT.

The festive season in school life when the graduate, amid illumination and flowers, song and declamation and valedictory speakers, receives his diploma and leaves the school, is at hand.

The occasion assumes importance not only in that it lauds the boy and girl that has completed a well performed task, but also because it affords a time and place when the serious purposes of popular education may well be discussed.

While the general form of graduation exercises is about the same everywhere, there are certain features, however, which are variously expressed. The graduation class seeks to give some demonstration of its achievements and at the same time entertain an audience of sympathetic parents and friends, yet the adult figure with a well digested message should also appear upon the scene.

There is the graduation address delivered by one of the local school officials or by a distinguished outsider. The latter is resorted to because he comes with greater prestige, than attends the local personage. The thought here is that some one of name and fame will lend greater dignity to the occasion.

Speakers of high standing usually address themselves to an adult body rather than to graduating class of a grade or high school. The

danger here is that while such speakers shoot over the heads of an adult audience they miss the graduate by a mile.

The graduate may have been told many fine and solid things during the year by his teacher and the superintendent, but it is well to have such things corroborated by an outsider. To impress the graduate with the part he must play in the contest of life is after all the larger objective of graduation exercises.

But, there may be members on the board of education who can demonstrate a successful career and who can also impress a graduation class with the elements of success, outline a safe path in life, and point to the goal of human existence. Where local conditions and conceptions permit, the president of the board of education, some member of the same, or the superintendent should give the parting word to the graduate.

In recent years conditions have arisen in the mode and manner of conducting graduation exercises which have prompted serious concern on the part of boards of education and which have resulted in restrictive regulations. These have turned their attention more particularly to the question of dress, flowers and presents.

There has been a tendency towards silk dresses and fineries and to extravagance in the direction of gorgeous flowers. The rivalry engaged in by doting mothers has given many graduation exercises the air of style shows rather than that of simple and democratic school exercises.

Thus, school administrators have been obliged, as a protection to the parent of meager purse, to stipulate simplicity and uniformity in girl garments and to obviate the showers of expensive flowers. These regulations have on the whole been actuated in the preservation of the spirit of equality among a student constituency.

The one great value derived from school graduation exercises must, after all, be found in the stimulant they give to citizenship stability and service. The student must carry away the thought that the state has given him a training for a career as man and citizen, and the adult must be impressed with the conviction that one generation owes an education to the succeeding one, and that the schools are the bulwark of the nation. As such they deserve continued support and encouragement.

CHATS DURING RECESS.

—Now that face powder and paints are barred from the school by a ruling of the Arkansas supreme court we may proceed to produce healthy complexions through physical exercise and proper nourishment. Why not?

—Talking about big superintendency jumps: Zenos Scott goes from Louisville, Ky., to Springfield, Mass.; Harvey S. Gruver from Worcester, Mass., to Lynn, Mass.; E. E. Lewis from Rockford, Ill., to Flint Mich. All \$8,000 to \$10,000 appointments.

In Iowa the legislative politicians got back at the teachers' association by calling it "The Teachers' Trust." But it developed that weight of a slogan depends somewhat upon its origin. The politicians suffered defeat.

"We have had farm blocs, and industrial blocs and business blocs in our legislature. Why not teacher's blocs?" So asks Superintendent Frank Cody of Detroit. Well, the answer might be that there are no schoolmasters in the legislature. Why not elect a few and see how they'll wear?

The students of a high school at Lancaster, Pa., staged a mock marriage, with real kissing, as a class day exercise. Then the school board got busy with the result that any future attempt at mock marriage ceremonies will be accompanied by real spankings instead of smacking.

In a speech made at the Cleveland superintendents' convention someone lauded the accuracy of newspaper reports on educational matters. That speech has received more favorable comment in the public press than any other speech made at the convention.

The Tramp Pedagog

Supt. O. J. Mathias, Desloge, Mo.

There was a time when we bought our goods from the tramp peddler; our physical well-being was placed in the hands of the traveling "quack" doctor with his patent "dope" and the type for our newspapers was set by a journeyman printer. Time has made a change in some things. The tramp peddler can no longer compete with the personality and systematic business methods of the merchant who is permanently located and in a position to study and meet the needs of his community. The "quack" doctor is able to ply his nefarious trade only in the most ignorant and primitive communities. The journeyman printer has passed on down the trail with the dhow and the dodo.

Yea, verily, time has made a change; but we have with us yet, in this year of our Lord, 1923,—*The Tramp Pedagog*. Conditions obtain within and without the teaching profession that have made the tenure of teachers in a given community as shifting as the sands of Sahara. Does it pay? Considering the welfare of the boy and girl, does it pay? Mr. Teacher, is it a good policy? Mr. School Board, is it sound business? From the standpoint of social efficiency in a community, does it pay?

Three questions may be asked. Is the school a political organization? Is the school a philanthropic institution? Is the school a business proposition? If the school is a political organization to which might be applied the maxim, "to the victor belongs the spoils," then a shifting tenure is desirable. If the school is a philanthropic institution destined to furnish employment to the physically and mentally deficient then, of course, there should be a shifting tenure in order to grant a greater amount of charitable relief. If the school is a business proposition then it should be placed on as sane and sound a business basis as obtains in other business organizations throughout the land.

There is not a banking system, a merchantile establishment or a developing corporation in the nation that could hope to compete with other organizations of a kindred nature if the personnel of these business concerns shifted one-tenth as often as does the personnel of a given school system. Most banking concerns, even in small towns, authorize a heavy life insurance against the possible death of a skilled employee. Business establishments throughout the land recognize the increased value of skilled employees with each year of successful service. The salary schedules of large city school systems recognize an increased efficiency up to at least five years of successful service in the same system.

The community is a small republic. An aggregate of communities make a nation. The school is a strict business proposition. It is the business of the school to fit boys and girls into the great scheme of right thinking, wholesome living, deep appreciation and active, American citizenship. The influence of personality, leadership and community service on the part of a sympathetic, progressive and trained teacher will increase with each year of successful service in a given community. An estimate of this value is a matter, more or less, of personal opinion. We are led to believe that it takes at least five years of successful service in a given community for any teacher to reach her maximum efficiency in that community. It is a matter for doubt if any teacher reaches more than ten per cent efficiency, so far as her service to the community is concerned, during her first year of service in that community. If these statements are true then we have far too

many teachers throughout the nation working on about ten per cent community efficiency and under the five year, or hundred per cent efficiency mark.

We are reminded of the aged broker who had amassed millions in the buying and selling of stocks. He had reached 90 and was on what seemed to be his death bed. He grew very despondent and the jovial physician in an effort to cheer said, "You are not going to die. You are only 90. You will reach 100."

The old broker said, "No. That would not be good business on the part of the Lord. Why should He let me reach par when He could pick me off at 90?"

We have heard of school boards who used this type of business judgment in connection with the tenure of efficient teachers. Is it good business?

A number of states in the Union have more than 75 per cent of their total teaching force under the five year mark. This means that in these states less than one-fourth of their total teachers have worked in a given community for five or more years. Some states have over 50 per cent of their total teachers spending their first year in the community. Practically all the large cities indicate an opposite figure and a low per cent of first-year teachers.

The following data was compiled in a mid-western state. Four hundred ninety-eight communities were considered as being communities doing some high grade school work and therefore listed with the state department of education as among the superior schools of the state.

Number of Superintendents Who Have Held Office During a Ten Year Period in 498 Mid-Western Communities.

Number of Superintendents	Number of Schools
10	1
9	6
8	16
7	50
6	75
5	121
4	91
3	68
2	50
1	20

There is no question but that the broken tenure of a worthy superintendent or principal multiplies the loss to the community many times over that of the classroom teacher. Here we find 121 schools with five superintendents in ten years. We were unable, in this state, to find any school listed as doing some high grade school work with more than ten superintendents in ten years; but we feel sure that if the test was applied to schools doing only grade work that such a condition could be found. The writer was elected to the principalship of a grade school, some years ago, under the very shadow of a metropolis in the middle west, and he was the fifth teacher to sign a contract in that community between September and December of that year. We came across a country

school a few days ago which has had 32 different teachers during the past 30 years.

We found that the average tenure of all superintendents in this mid-western state came under two years. We carried this tenure through a period of eight years and found that the tenure of its superintendents had increased 4871/59385 of a year.

We shall outline only a few reasons why we have this shifting tenure.

I. Teacher.

1. Desire to advance—financially—professionally.

2. Home-makers. Lady teachers who marry and become real teachers in homes of their own.

3. "Stepping-stone" teachers.

4. "Travelog" teachers who desire to see the country.

5. Teachers who accept positions for which they are not qualified or adapted.

6. Teachers whose conduct in the community is antagonistic to the best interest of the school.

7. Habitual failures.

II. Community.

1. General lethargy which repels active, progressive teachers.

2. Fear of taxation sufficient to hold prepared teachers and grant an adequate increase in salary in proportion to their increased worth to the school and community.

3. Desire to fill the school with "home brew" teachers (native sons and daughters) irrespective of qualifications or adaptation even though efficient teachers are dismissed in order to make a place.

4. Complaints against teachers that degenerate to the level of neighborhood gossip without any attempt at adjustment.

5. Poor living and social conditions.

6. "Peanut" politics and favoritism.

- No regard for the rights and feelings of teachers.
- Places a premium on "wire-pulling" and toadism and a discount on efficient service.

The negro janitor in an apartment house explained that the red cap with the black letters, "Custodian," came from the fact that he was cussed by 49 per cent of the people who lived in the apartment and that he had to toady to the other 51 per cent in order to hold his job. The red cap with black letters would fit the status of a good many teachers throughout this free American republic.

7. The chronic complainer who is able to get on a board of education and transform it into a "board of aggravation." This quality manifests itself in some man or woman in practically every community; but they vent their wrath on the new teacher. They have remembered from their brief school days the copy book maxim, "A new broom sweeps clean." They are ardent advocates of the "new broom" theory as applied to the school teacher in their community so long as the theory does not fit "me and mine."

Now, since the school is a strict business proposition every effort should be made to encourage a longer tenure for teachers in a given community. The teacher should get a bigger conception of community service and communities should take into consideration and seek to eliminate, so far as possible, those things which repel worthy teachers. State associations should join with the National Education Association and go on record as favoring a permanent tenure for teachers based on efficient service and good behavior. The worthy teacher should feel as secure in her tenure as the bank clerk or the grocery boy. The school and the teacher will be in a position to render a greater service to the community as a whole and to the

(Concluded on Page 72)



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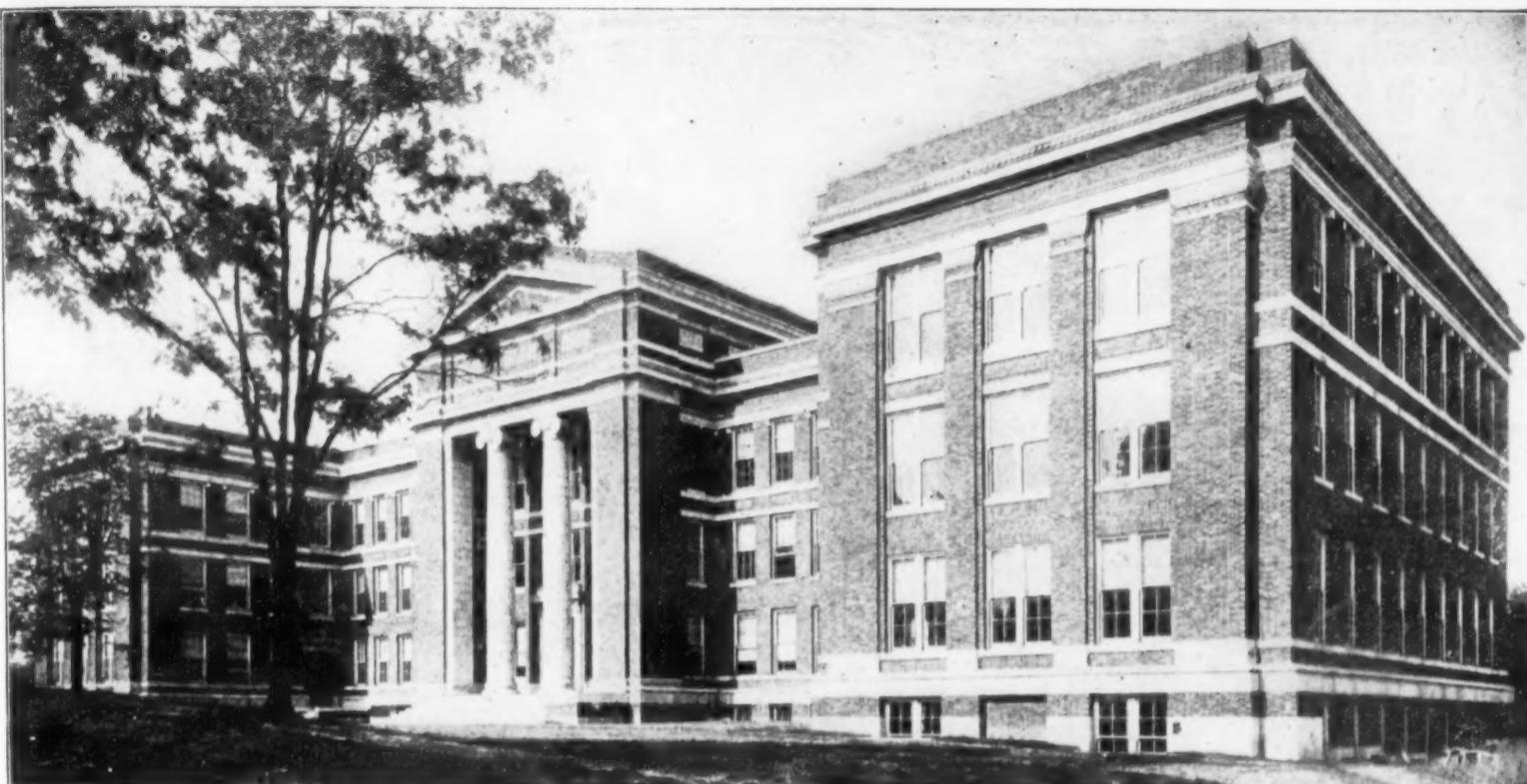
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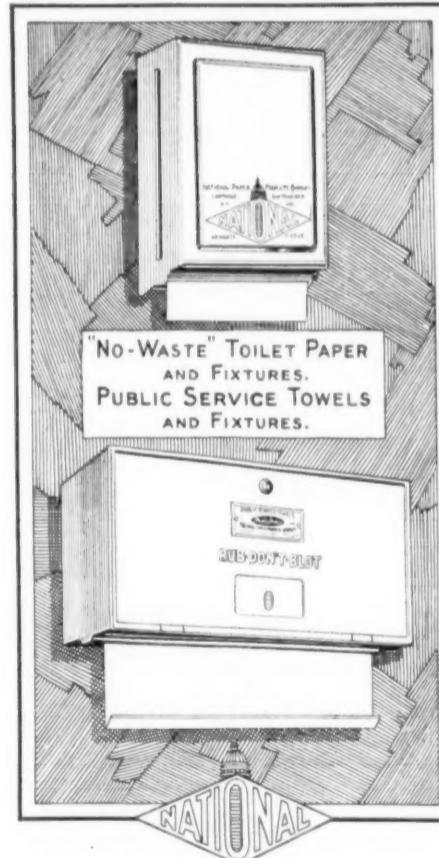
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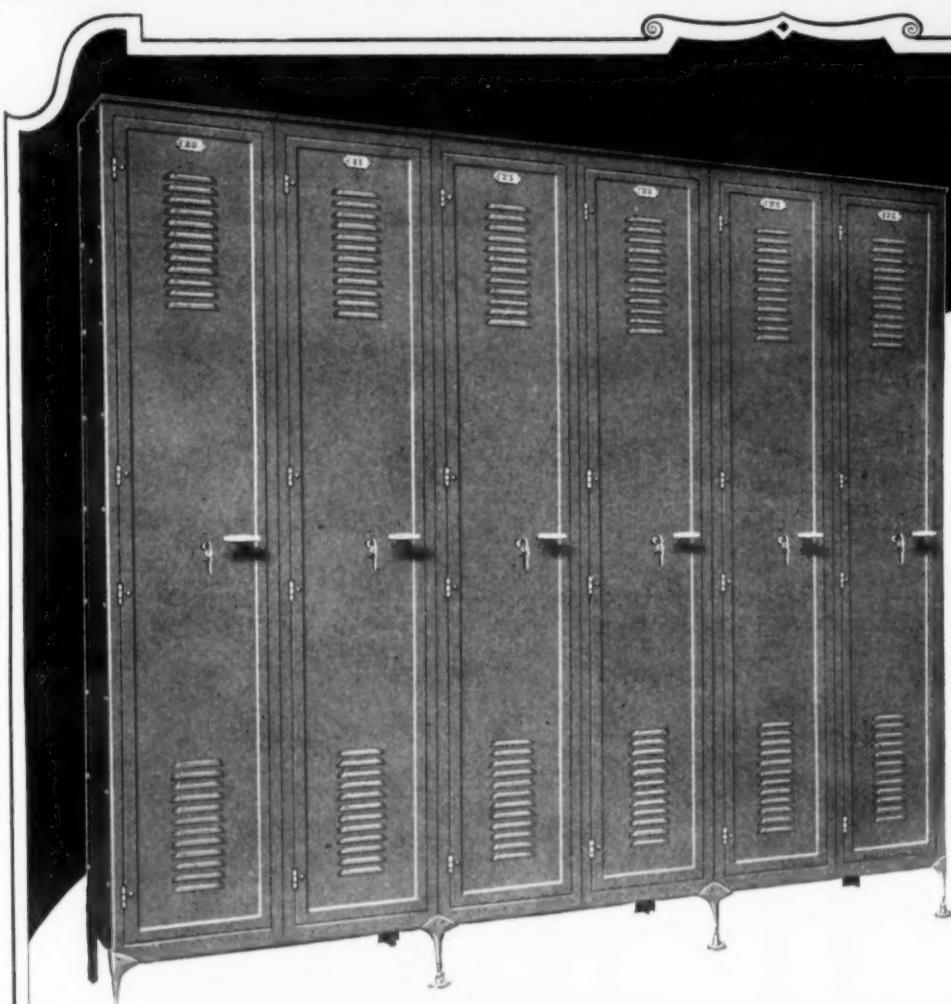
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Purpose and Possibility in Coupons.

The Coupon of Credit is a device intended to encourage the recognition of preparation,

special effort and good teaching. In addition to its cash value, the coupon should be considered as a certificate of merit, and not only an order for additional compensation. The plan is not intended to remunerate teachers fully for their special activity. The coupon is given as a partial reward to those teachers who are striving to do more than the letter of the law requires.

It has proved to be an effective method for advertising and stimulating state-wide school projects. For example, when we wished to make a campaign for a large enrollment in

approved extension classes we listed a certain amount of credit in extension work as a coupon. In the same way teachers were lined up for agricultural club work. The State Department of Education is now planning to put special emphasis upon pupils reading circle work, and will offer a coupon of credit to teachers of pupils making the required record in Reading Circle Work. As stated above, we are careful not to depend entirely upon cash as a stimulant. At the present time a teacher is limited to six coupons in one year which means an increase of \$6.00 per month for these special projects.

The Land of Equal Opportunity?

Edwin J. Brown, Emporia, Kan.

It has been generally assumed that America is a land of equal opportunities. There are few who do not feel that every boy and girl can have a thorough educational training if he or she will accept it. There is a little feeling down deep in the heart of each of us that school bells are ringing all over the broad land and that every boy and girl must accept the admonishing call or wilfully close his ears.

Whether a boy or girl gets a good education or a poor one, receives proper training or very little, is as much a gamble as betting that Babe Ruth will make 65 home runs next season. There are many things which make each doubtful and the former is no more of a sure thing than is the latter.

It doesn't much matter whether we talk about the training of teachers, the length of the school year, the amount of money expended on buildings or other vital factors which make up the efficient school, our conclusion is much the same. Equality of opportunity is much like the farmer's giraffe, "There ain't no such animal."

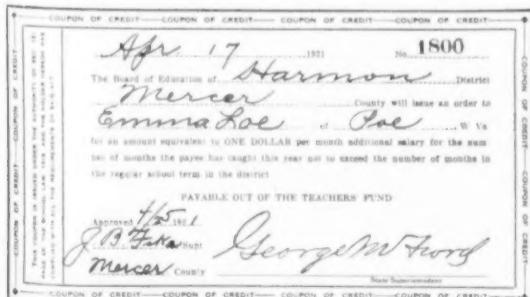
The Statistical Abstract for 1920 shows the inequality existing in the several states in the following data for 1917-18: The average number of days attended by Johnny Jones and all

his little brothers in one state was 52 days. This is the average for the state. Howard Anderson and all his little brothers and sisters in another state averaged 131 days. Johnny's parents are more than anxious for their little boy to have a splendid education, but had he been in school every day in the school year, and what is true for him is true for every other child in his state, he could have had but one hundred thirteen days of schooling. Howard and his little schoolmates had a chance of attending 187 days. These two states had an average difference of 74 days in their school year.

Land of Equal Opportunity?

The average expenditure for all the little Johnny Jones' and Howard Andersons' in one state was but \$7.89 for each child. Another state in this "land of equal opportunity" spent roughly \$76.30 for each child within its borders. In other words one state spends one dollar for each child where another state spends ten dollars.

Miss Haney and her fellow teachers in a certain state find it rather difficult to pay for board and lodging, cloth themselves properly, attend institutes and summer school, buy a few (Concluded on Page 78)

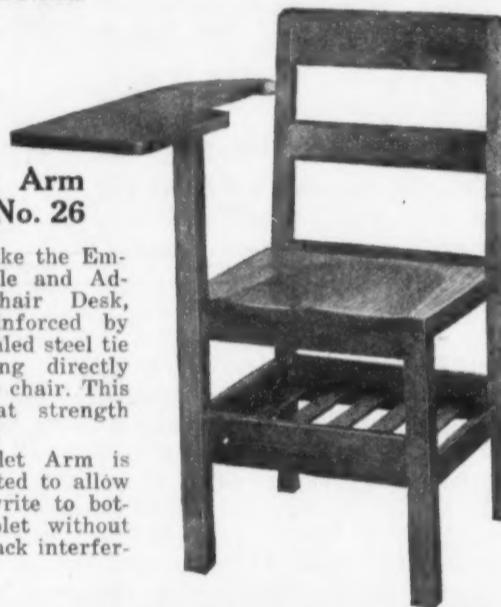


TEACHERS' CREDIT COUPON USED IN
WEST VIRGINIA.



Portable Chair No. 505

Many years of experience in what is most essential in a portable chair have developed the No. 505, a most practical and economical Portable Chair. Its construction is rigid enough to insure long, hard service. The weight does not rest on the binders as in most portables, but is firmly held by malleable hinges. This strengthens the whole construction.



Tablet Arm Chair No. 26

Is built like the Empire Movable and Adjustable Chair Desk, being reinforced by eight concealed steel tie rods running directly through the chair. This means great strength and service.

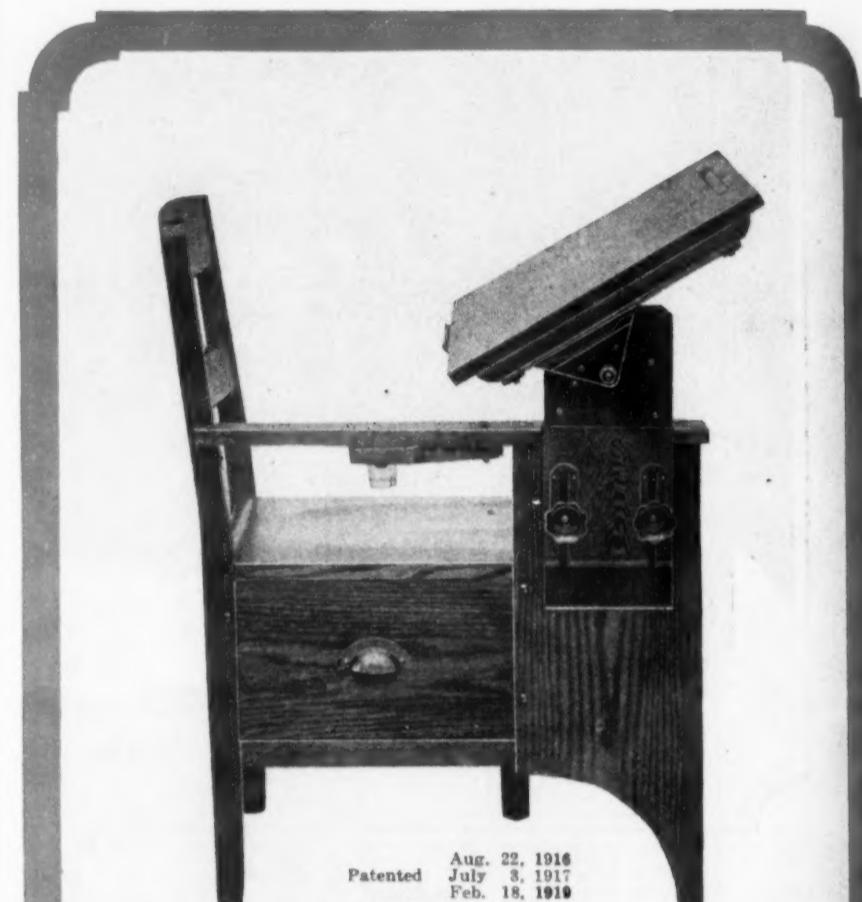
The Tablet Arm is so constructed to allow pupils to write to bottom of tablet without the chair back interfering.



Portable Chair No. 525

This Portable Chair No. 525 is built for comfort and service. A reinforcing thin strip across the back adds strength. For a good, substantial medium priced portable chair, specify No. 525.

The "EMPIRE" CHAIR



Patented Aug. 22, 1916
July 8, 1917
Feb. 18, 1919

SIDE VIEW.

The "Empire" Movable and Adjustable Chair
Desk is permanently expressive of both quality and durability in every detail.

Developed to meet every classroom requirement, it is most practical and economical, guaranteed to withstand the bangs, blows, kicks and "hard usage" that may result from the activities of the average pupil.

The "Empire" Movable and Adjustable Chair
Desk is made in six sizes to fit the various grades and has five adjustments so that each pupil may be individually fitted.

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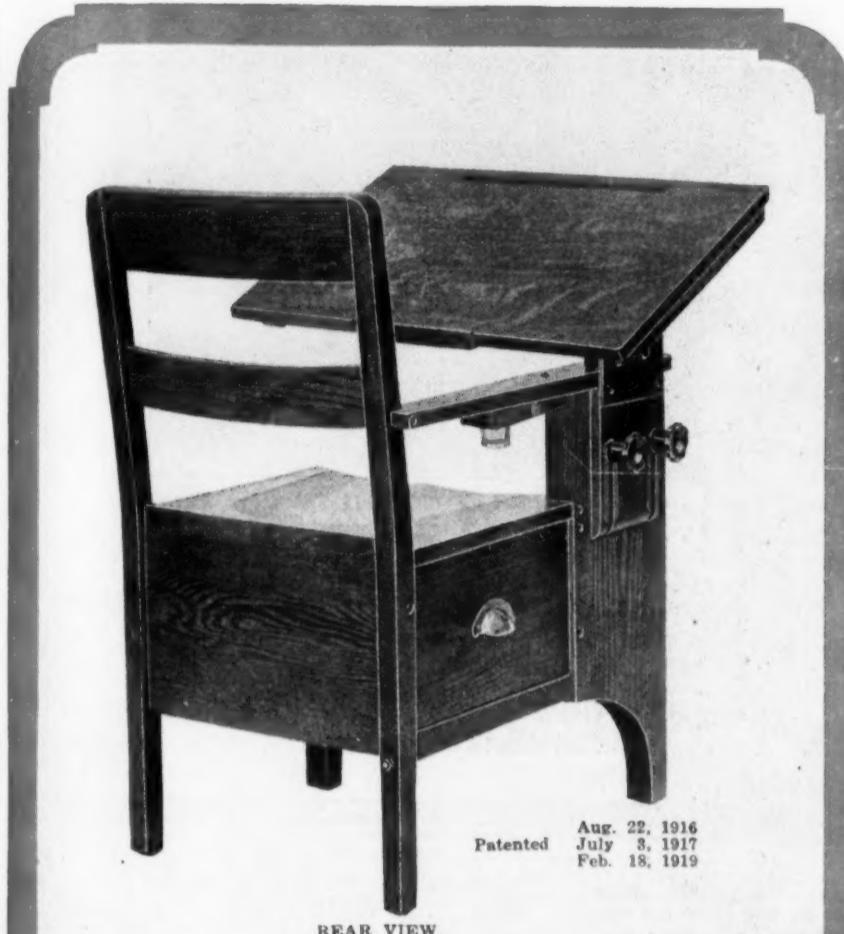
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KENNEY BROTHERS &
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San Francisco, Calif.

E" Quality Line



Patented
Aug. 22, 1916
July 8, 1917
Feb. 18, 1919

REAR VIEW.

Standardize on the "Empire" Movable and Adjustable Chair Desk for your schools. It is the most practical, durable and economical. Its unlimited flexibility coupled with its other exclusive features permit arrangement of most advantageous classroom groupings which increase teaching efficiency.

The Empire Quality Line includes pupils' fixed desks, teachers' desks and chairs, single folding chairs and opera chairs.

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NOLLA & MORELL,
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Portable Chair No. 500

The roll seat and high back with reverse curves are absolutely form fitting and assure a most comfortable Veneer Portable chair. The No. 500 is made of 5 ply three-eighths inch veneers and finished in dark brown.

In your Auditorium the No. 500 Portable Chair will give years of service and satisfaction.



Tablet Chair No. 17-R

Manufactured of quartered oak with heavy bolted construction, this No. 17-R Tablet Arm Chair is designed and constructed to stand the use and abuse of the schoolroom. The Tablet arm is 10x23 inches, providing support for the entire arm when writing.



Portable Chair No. 535

Features of worth on Portable Chair No. 535 are the malleable hinges which hold the weight instead of the legs and binders and the screw and belt fastening of the hinges. This means absolute permanency, no matter how many times the seat is banged or jarred. Constructed of either maple or oak as desired, and finished in dark brown or dark golden oak.



Conservatory of Music, Northfield, Minn.
Sound-proofed with Cabot's Quilt.
Patton, Holmes & Flinn, Architects, Chicago.

Sound Proof Music Rooms

All school-rooms need sound-proof floors and partitions, but music rooms most of all. The above building was sound-proofed with

CABOT'S QUILT

and the directors report the usual "perfect results."

Sound-proof, Decay-proof, Vermin-proof and Fire-resistant—the only material that meets all requirements.

Samples and full details on request.

Samuel Cabot, Inc., Mfg. Chemists, Boston, Mass.
342 Madison Ave., N. Y., 24 W. Kinzie St., Chicago.

(Concluded from Page 75)

books and subscribe for a few periodicals. It isn't at all odd that they do find it difficult. The average salary for the teachers for their state is \$256. Miss Rowland and her fellow teachers in a sister state drive a modest Ford runabout to their schools, and attend a good show occasionally, it makes them skimp to do this and make both ends meet but the average salary for teachers in their state is \$1012 so that it can be done. Again we summarize: One state spent one dollar for teachers' salaries where another State spent four dollars.

The buildings in another state which are used for school purposes are not very good; we shouldn't expect them to be, that State spends but five cents a year for each child upon its school buildings. A sister state spends \$17.62 upon school buildings each year, for every child within its borders. Scarcely equal opportunity when one state spends 352 times as much per capita upon buildings as is spent by another state.

Figures of this kind can be offered on ad libitum. The inequality can be seen from a hundred different angles. One of the most evident disparities of opportunity is among the different races. There is one southern state whose population is about 52 per cent black. In this state there are about 600 consolidated schools for whites. One searches in vain for a consolidated school for the colored boys and girls, notwithstanding the fact that a much larger percentage of the colored population is rural.

More than two-thirds of the schools in this country are one room schools and they are all rural schools. This means that the child in the country has a teacher for eight grades but the city child has a teacher for each grade. Of course the teacher teaching the eight grades gets the better salary? But she doesn't, the average salary for rural teachers is \$479, while her city sister averages \$854.

Perhaps the greatest inequality exists in the matter of supervision. The city school has its superintendent, its principal, its supervisors, but the average county superintendent, Commissioner of Education John J. Tigert tells us, must supervise alone 132 teachers scattered

over an average area of 555 square miles. About four-fifths of them do not have a stenographer. Equality of opportunity? Well, no—we can hardly say that it is.

When all is said that can be said on the subject, there is but one logical conclusion: It's where the child happens to live in America that really determines whether in an educational way he shall ride in an ox cart or a limousine. Commissioner Tigert says that the question of financial support is the one big problem. If revenues for all schools were uniform there would be a tendency at least toward a practical uniformity of educational opportunity. Without this uniformity of revenue, education comes to the lucky ones who roll the dice of fortune.

CONVENTION PROGRAM OF PUBLIC SCHOOL BUSINESS OFFICIALS.

The National Association of Public School Business Officials will hold its twelfth annual meeting May 16, 17, 18, 19, and 20, at St. Louis, Mo. The meetings will take place in the Hotel Melbourne, which will also be the headquarters for the members.

On the opening day of the convention, the delegates will be given an opportunity to visit the St. Louis board of education and the local school buildings in order to acquaint themselves with the special features of the school system. On Tuesday, Wednesday and Thursday the business sessions will be held, and on Thursday, the annual dinner will take place. The final session and election of officers will take place on Friday.

Tuesday afternoon has been set aside for the discussion of building problems. Wednesday morning will be devoted to problems relating to the professional interests of school business officials; school finances and playground problems will take up the entire day on Thursday, and a round-table dinner will be held on Friday morning.

President Herbert N. Morse has announced the completion of the preliminary program of the association which will be given during the convention.

The Program

"What the New York State Ventilating Commission Did and Why," Mr. D. D. Kimball, member of the commission, New York, N. Y.

SLATE STAIRS IN SCHOOLS



Consolidated School, Plymouth Township, Pa.
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Associate Architects

The increasing use of slate for stair treads in schools is evidence of the durability, fire resistance and velvet-like grip afforded by this product of nature.

THE STRUCTURAL SLATE COMPANY
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"Mechanical vs. Window Ventilation," Henry G. Perrin, City Engineer, Baltimore, Md.
"Heating and Ventilating Costs," Mr. James J. Mahar, member of the Boston Schoolhouse Commission.

"A Primer on Schoolhouse Planning," Frank Irving Cooper, Boston, Mass.

"Address," John J. Tigert, U. S. Commissioner of Education.

"Emphasizing a Comprehensive Playground and Building Program," Mr. Ernest Sibley, Palisade, N. J.

"Essential Differences in Planning Large and Small High Schools," Mr. Wm. B. Ittner, St. Louis, Mo.

"Classification of School Buildings as to Use, Construction and Type," Mr. S. A. Challman, state superintendent of school buildings of Minnesota.

"What Cooperation Does the City Superintendent Require of the Business Officials of the Board of Education to Put Over the Educational Program?" Mr. W. J. Bickett, superintendent of schools, Trenton, N. J.

"Determining Uniform High School Per Capita Costs," John S. Mount, Trenton, N. J.

"Why Should Research Bureaus Be Under the Direction of the Secretary of the Board of Education?" Mr. William Dick, secretary of the board of education, Philadelphia, Pa.

"What Service Should the School Architect Render the Board Beyond the Drawing of Plans and Supervising Construction?" Mr. Dwight H. Perkins, Chicago, Ill.

"Methods of Paying Janitors," Mr. C. W. Handman, Cincinnati, O.

"Securing the Cooperation of the Women of a School District in Putting Over the Financial Program of a Board of Education," Miss Rita Knowles, secretary of the board of education, Moline, Ill.

"Public School Accounting From the Viewpoint of the Auditor," Mr. Arthur Kinkade, public school accountant, Chicago, Ill.

"A Scientific Budget for a Town School District," Miss Frances Peirce, secretary board of education, Westfield, N. J.

"Scientific Budget for a City School District," Arthur B. Moehlman, director of statistics and reference, Cleveland, O.

"Procedure for Uniform Accounting," Mr. W. W. Theisen, director of reference and research, Cleveland, O.

"How Boston Finances Its School Building Program," Mr. Herbert L. Patterson, Boston, Mass.

"Shifting the School Tax Burden From the Property Tax to Other Sources of Revenue," Dr. George D. Strayer, Teachers College, Columbia University, New York, N. Y.

"Fundamental Principles of Marketing Bonds," Prof. John G. Fowlkes, University of Wisconsin, Madison.

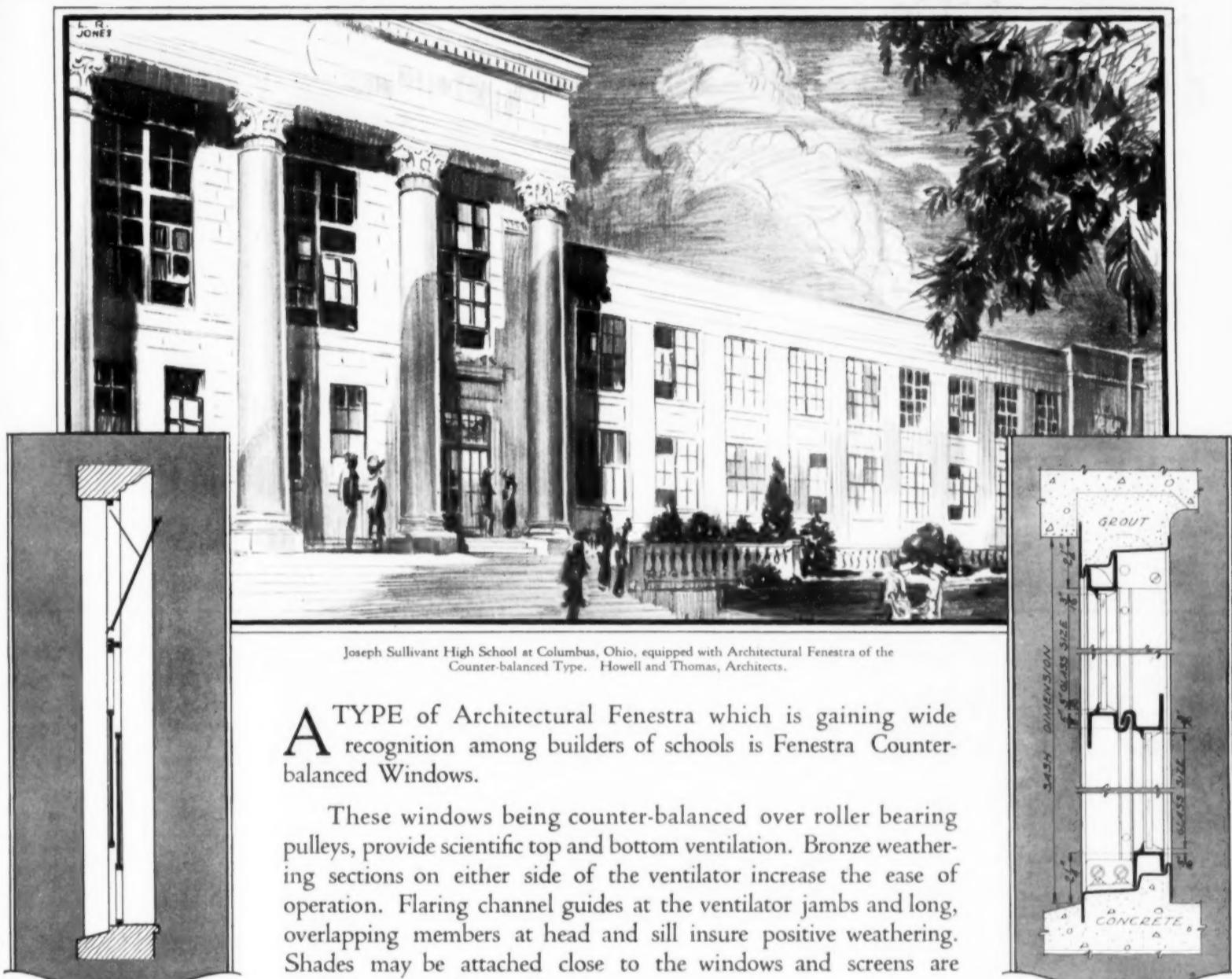
"Per Capita Costs," Mr. Wm. T. Keough, business agent, Boston, Mass.

"Sale of Convention Floor Space and Annual Reports," Mr. G. W. Grill, secretary of board of education, Lakewood, O.

"Purchase of Textbooks," Mr. Samuel Gaiser, superintendent of supplies, Newark, N. J.

"Methods for Insuring Quality in Competitive Buying," Joseph M. Coyle, State Purchasing Agent, Trenton, N. J.

ARCHITECTURAL FENESTRA ~



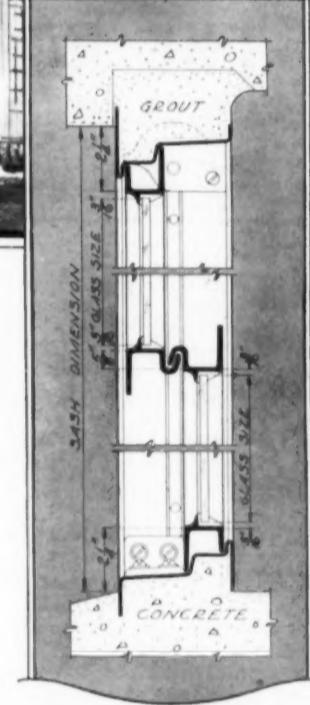
Joseph Sullivant High School at Columbus, Ohio, equipped with Architectural Fenestra of the Counter-balanced Type. Howell and Thomas, Architects.

A TYPE of Architectural Fenestra which is gaining wide recognition among builders of schools is Fenestra Counter-balanced Windows.

These windows being counter-balanced over roller bearing pulleys, provide scientific top and bottom ventilation. Bronze weathering sections on either side of the ventilator increase the ease of operation. Flaring channel guides at the ventilator jambs and long, overlapping members at head and sill insure positive weathering. Shades may be attached close to the windows and screens are easily fitted on the outside.

In the Joseph Sullivant High School, Columbus, Ohio, shown above, the 50% ventilated units are used in pairs with structural horizontal mullions surmounted by transoms.

Our Sales Engineers located in all the leading cities will be glad to go over your window requirements with you and show you how this type of Architectural Fenestra may be made to harmonize with the highest type of school construction.



Vertical Cross Section of Fenestra Counter-balanced Window showing construction at head, sill and meeting rail.

Vertical Cross Section of Joseph Sullivant High School installation, showing Fenestra Counter-balanced Windows with structural horizontal mullions surmounted by opening-in transoms.

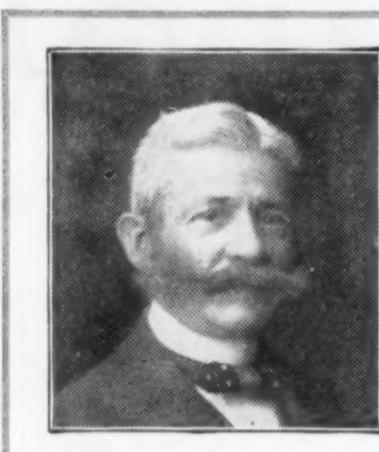
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OVER-AGE CHILDREN—GIVE THEM A
CHANCE.

Ralph Yakel, Superintendent of Schools Paducah, Kentucky.

Last year when the age-grade table was compiled, it was found that the over-age condition of our schools was not being improved. After studying the situation very carefully, the supervisor of elementary schools, Miss Lula H. Crim, was authorized to take some radical steps to remedy this condition. We had been urging the principals and teachers to give the over-age children a chance in the highest grade out of which they could benefit. As is true in most cities, principals and teachers are rather conservative in temperament, consequently we did not get many doubtful students promoted.

After talking the matter over with the principals and teachers, and asking their sympathetic aid in making an experiment, a total of 348 over-age pupils in grades one to eight, inclusive, were doubly promoted. That is, every one was skipped one-half grade, and some of them a whole grade. Most of these pupils were three years over-age, and none of them less than two years over-age.

The physical age of the pupil was almost the only basis for the promotion. Physical development, years in school and other reasons were considered in promoting pupils two years over-age, but the children who were three years over-age were put up, regardless of other conditions. The only test that was considered with reference to subject matter was the child's ability to read the textbook he was to use. We were very liberal in judging this ability.

Reasons for Over-age in Paducah.

The Paducah schools have been operating with semester promotions for years. The

schools are as well graded as any other school in this section. Heretofore, the schools have been fairly liberal in promoting overage children. The Paducah schools have a large number of pupils who come to them from country schools. It is not unusual to have twenty per cent of the pupils new to the system within a year, one-half of which come direct from the country. In the course of a few years, even with a liberal system of promotion, the overage condition becomes menacing. The Paducah schools have never had any large sums of money with which to operate, and therefore, special rooms for these retarded children were not possible. Financial condition was also responsible for our not putting into effect some of the other plans for the treatment of overage children.

The over-age condition in the colored schools was due to the constant migration to the city, and also, to the further fact that the colored citizens are not as careful to keep their children in school as are the white citizens.

Results Obtained.

The table showing results is given below. The last two schools mentioned are schools for colored children, and it is interesting to note that practically the same results were obtained in schools for the colored children as in the schools for the white children.

Pupils Promoted in Paducah, Kentucky, Spring 1922.

SCHOOL	1	2	2	4	5	6
Clay	6	0	5	0	1	0
Jefferson	32	22	3	3	4	2
Lee	34	18	7	7	2	5
Longfellow	4	2	1	1	0	1
Franklin	49	24	18	4	3	4
McKinley	65	21	18	16	10	5
Washington	45	26	17	2	0	3
Whittier	40	18	17	11	0	0
Garfield (Colored)	47	32	1	7	7	3
Lincoln (Colored)	20	9	5	6	0	1
Total	348	172	92	57	27	24
Per Cent.	50	23	16	7	6	

Key to Columns.

- 1—Number children doubly promoted.
- 2—Number receiving same average grade as previous term.
- 3—Number receiving lower average than previous term.
- 4—Number receiving higher average grade than previous term.

5—Number receiving no grade, owing to sickness, moving from city, etc.
6—Number of these double promotions failing, after skipping.

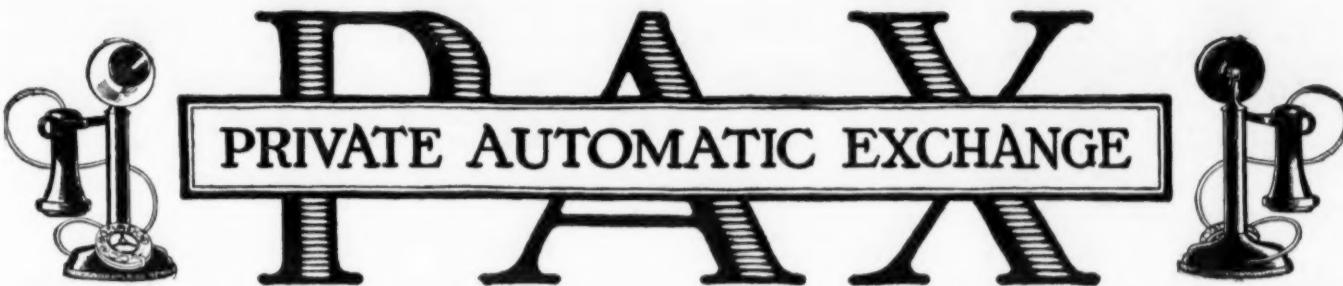
It Paid to Give The Children A Chance.
The important thing is that fifty per cent OF THE CHILDREN GOT THE SAME GRADE that they had been getting in the lower grade. A surprise to many teachers was the fact that sixteen per cent OF THE CHILDREN GOT A HIGHER GRADE than they had made in a grade lower, whereas only 23 per cent made a lower grade. Another point worthy of notice is the fact that only six per cent failed to pass in the higher grade. This six per cent is just about the average percentage of failures in our schools in normal grades.

Could not this experiment be tried in other cities, with profit both to the children involved, and the city? As all supervisors and superintendents know, the tendency on the part of many teachers is to "lean backward" in making promotions. The teacher desires to have a child reach a certain scholastic attainment. The exact conditions which caused this overage situation in Paducah may not be the principal cause of overage in many cities. However, an overage pupil who is left in the room with smaller and younger children will probably react in about the same manner under normal conditions. When placed with children near his own age, he has a new incentive to keep up his work. Also, it is a natural reaction for a child in whom you have placed confidence to rise and meet the extra demands.

Most authorities have, for several years, advocated the placing of over-age children in Junior High Schools, regardless of scholastic attainments, provided the child could get more out of the work in Junior High School than he is getting in the lower grades. Why are we not as liberal in our promotions in lower grades?

—Supt. A. McDonald of River Rouge, Mich., has been reelected for another three-year term.

—W. F. Weisend for nine years director of vocational education in Manitowoc, Wisconsin has been reelected superintendent of schools in Nampa, Idaho for a third year at a salary increase of \$300.



More than a private telephone exchange—the Automatic Electric Services of the P-A-X include and co-ordinate interior telephony, code call, conference, watchman service and all other inter-communication needs

The business of a school is confined to its four walls. Little, if any, contact is necessary with the outside world—yet there is an unusual need for co-ordination of all its internal units!

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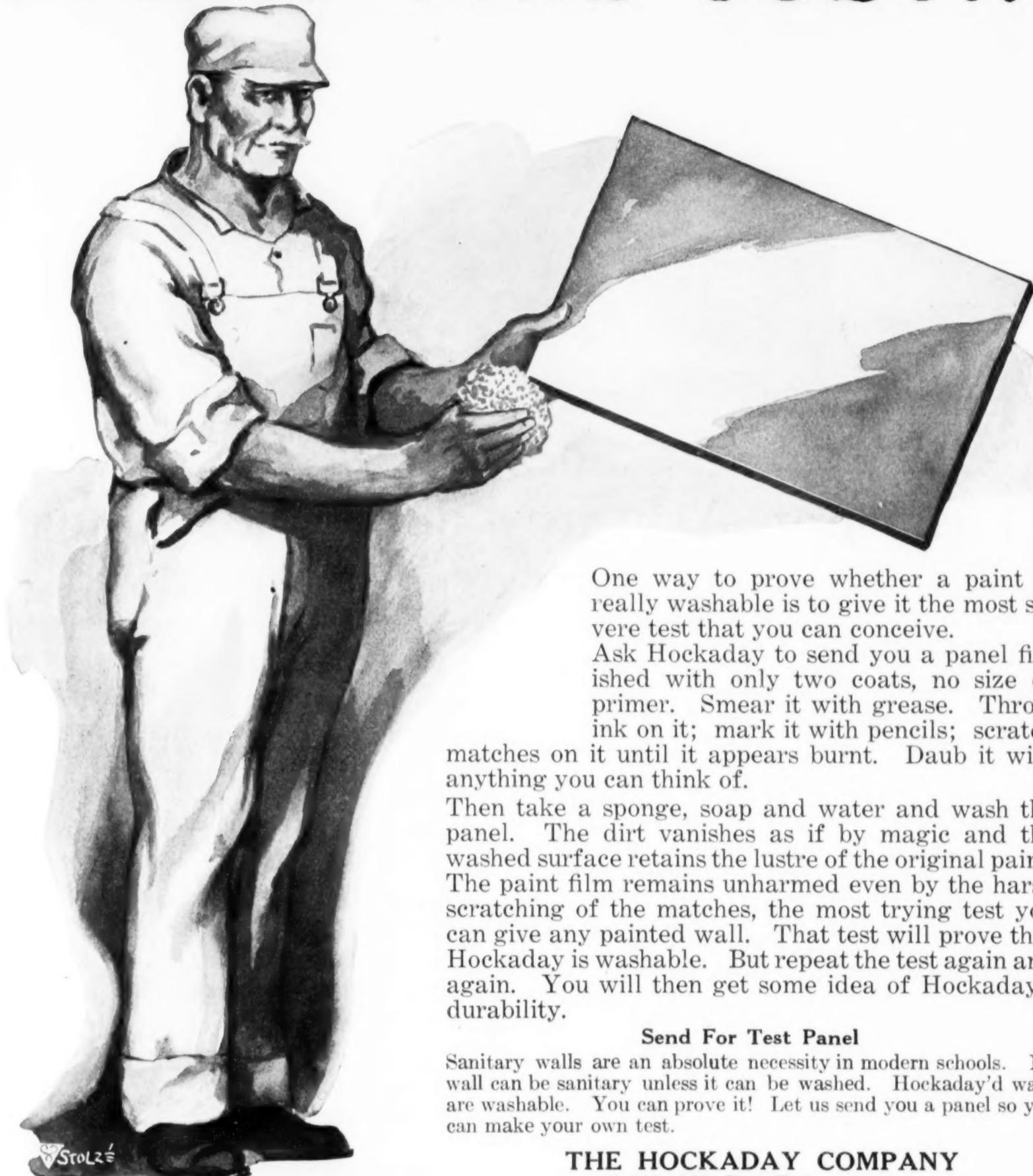
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One way to prove whether a paint is really washable is to give it the most severe test that you can conceive.

Ask Hockaday to send you a panel finished with only two coats, no size or primer. Smear it with grease. Throw ink on it; mark it with pencils; scratch matches on it until it appears burnt. Daub it with anything you can think of.

Then take a sponge, soap and water and wash the panel. The dirt vanishes as if by magic and the washed surface retains the lustre of the original paint. The paint film remains unharmed even by the harsh scratching of the matches, the most trying test you can give any painted wall. That test will prove that Hockaday is washable. But repeat the test again and again. You will then get some idea of Hockaday's durability.

Send For Test Panel

Sanitary walls are an absolute necessity in modern schools. No wall can be sanitary unless it can be washed. Hockaday'd walls are washable. You can prove it! Let us send you a panel so you can make your own test.

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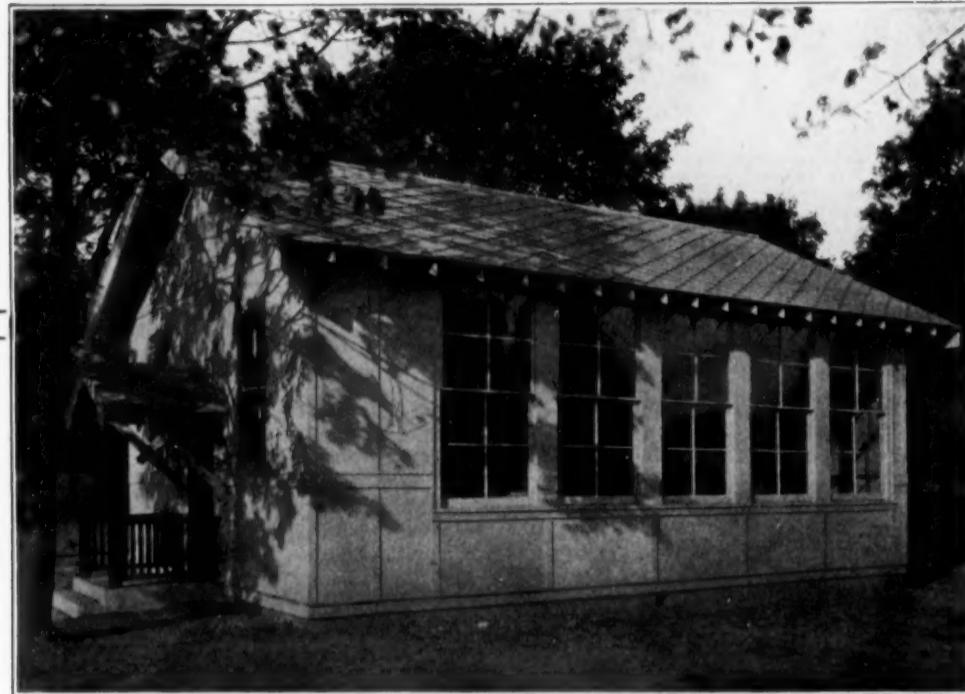
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You need room now for your other grades. We can solve your problem.

We can furnish Schools of one, two, four or more rooms. We can tell you what the school will cost, when erected, ready to occupy.

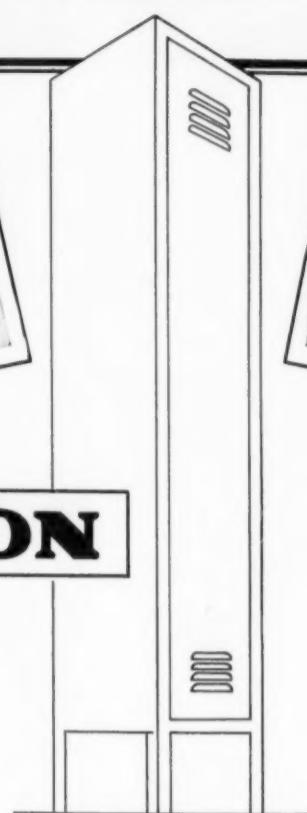
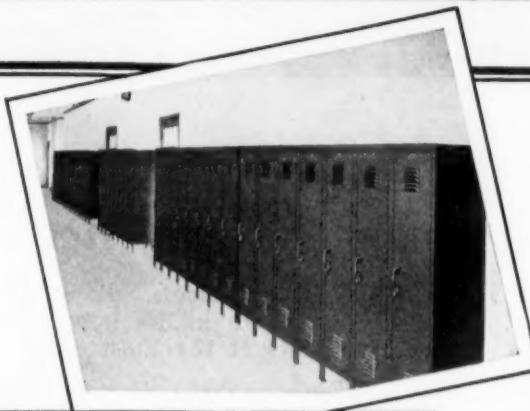
Tell us how many children you have to accommodate and we will forward full information, along with illustrations of our schools.

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THE BUILDING PROGRAM OF BAKERSFIELD, CALIFORNIA.

Paul VanderEike, Vice Principal, Kern County Union High School.

Owing to the unprecedented development and settlement of Kern county, California, during the past ten years, and particularly Bakersfield, the center of the oil industry of the San Joaquin Valley, it has been impossible for school board trustees to provide educational facilities as fast as they were needed. Other sections of the Great Valley have had the same experience. In Bakersfield the high school has grown from an enrollment of 350 in 1911 to 1600 in January, 1923. The grammar schools of the city have made similar progress and the city board of education (high schools and grammar schools generally in California are governed by separate boards of trustees) has consequently had to double the capacity of its schools. The improvements in the grammar schools have largely been in the way of additions to old buildings or new structures on the premises with old ones, although a few new sites with new buildings were necessary.

Two years ago the high school board of Kern County Union High School of Bakersfield began a building program of unusual interest that will continue for several years to come. The old plant then consisted of a 14-room and study hall administration building with an annex having an auditorium upstairs and classrooms below; a commercial building; machine, forge, auto, and wood shops, two temporary classroom buildings and a gymnasium. In 1920, plans were drawn for a \$137,000 home economics building, under the able direction of the late Principal A. J. Ludden who unfortunately lost his life in an automobile accident before the build-

ing was completed. After its completion it was dedicated to him, and is now known as Ludden Hall.

While Ludden Hall was under construction, the agriculture building costing \$40,000, was planned by H. K. Dickson, head of the agriculture department of the high school. Last year the contract was let for a \$175,000 science hall, the ideas for which came from Paul VanderEike, head of the department, and his co-workers in science. The plans of this building have been under development for several years. This building is now under construction and will be completed by May 1, 1923.

Plans have already been drawn and are about to be advertised, for a \$100,000 auto-shop and garage, to be used for teaching auto mechanics and for housing and repairing the eighteen high school busses, used for transporting students to school from rural communities within a radius of twenty miles.

Since the present auditorium with its 1200 capacity can not accommodate the 1600 enrollment, the next building is to be a \$250,000 auditorium. The present auditorium is to be converted into a library and study hall.

The present gymnasium which is for boys and girls has already outgrown its capacity and a new \$100,000 structure is to be built while the auditorium is under construction. The plant even now is in need of classrooms and to supply this need a \$125,000 classroom building will be erected when the gymnasium is completed.

To make the plant complete, the board of education expects to spend \$100,000 for an athletic field. The money spent will be for the land necessary for a track and football field and a substantial stadium.

The program also includes a cafeteria which is now housed in the commercial building and an art building. When this plant is completed it will be second to none in the state. The present principal is H. A. Spindt.

WASTEFUL PLANNING OF SCHOOL CORRIDORS.

Architects and schoolmen quite generally express satisfaction at the advances made during the past decade in schoolhouse planning. The enrichment of school courses and the complication of daily programs have made the economi-

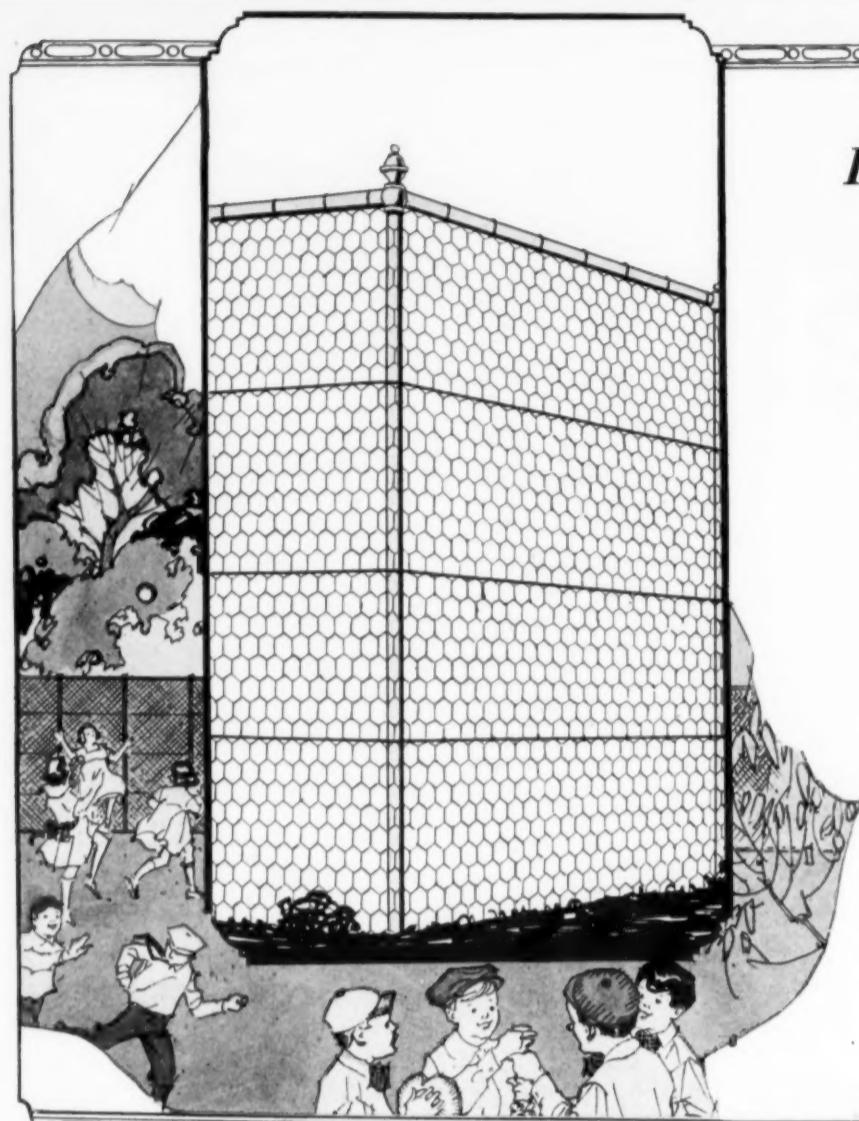
cal adjustment of buildings to school organizations a complicated problem, involving a thorough understanding of educational programs and methods and considerable ingenuity and planning skill.

In all the progress, however, but few refinements have been introduced in the simple matters of entrance, circulation and exit. School corridors and exits have been enlarged in response to a general demand for greater safety but no one has made a scientific study of minimum requirements for elementary and high schools where the problems of circulation are quite different. No one has ever observed children in any considerable number to demand school rates of improvement except during fire drills when children are moving more rapidly than usual.

In a recent editorial the American Architect discusses this problem from the standpoint of economy and makes the pertinent suggestion that logical requirements for school corridors, stairways and exits is in order. The editorial in large part is as follows:

In a recently published article written by Mr. George M. Hopkinson, Assoc. M. A. S. C. E., the economics of schoolhouse planning was discussed. Among the various topics considered was the relative space occupied by corridors and stairs. A survey of every building in the Cleveland school system resulted in finding 1,250,000 sq. ft. of floor space devoted to stairs and corridors. It is estimated that 40 per cent of this area 625 classrooms, with seating accommodations could have been saved and devoted to educational uses. This represents the equivalent of for 250,000 pupils, costing at present-day prices (1922) \$10,000,000 to build.

A survey of a large number of school buildings made by the Committee on Schoolhouse Standards, N. E. A., some years ago developed the fact that about sixteen per cent of the total area of the buildings, measured at all of the floor levels, was devoted to stairs and corridors. This simply established the average percentage and there is no particular reason for accepting this distribution of space as satisfactory simply because it is an existing condition. This naturally leads to the question— what is the minimum requirement for stairs and corridors in schoolhouses?



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The primary purpose of stairs and corridors is to afford ingress and egress to and from the various rooms or units and circulation of pupils from one room to another. The imperative essential is that they be so arranged as to afford safety in their use, and any space in excess of this should be justified by some evident necessity.

The areas devoted to stairs and corridors will naturally vary in the three kinds of school buildings—the elementary or grade school, the intermediate or Junior High School and the Senior High School. In the elementary school the pupil works in one room only and has no reason to go to other rooms except the toilets, playrooms and gymnasium or auditorium when these are provided. The principal circulation of pupils takes place when they enter and depart from the building. It is a flow that is capable of definite measurement. The pupils can enter the building at will and as individuals, but their departure can be under a disciplined control.

The entrance to or departure from the higher schools is made as individuals and not under mass control. This is due to the pupil's age and to the fact that the lockers are usually recessed along the corridor walls. The location of the pupil's locker has no particular relation to particular classrooms. As the pupil may attend several classrooms, laboratories and shops during the day, there is an inter-room traffic that is not found in elementary schools. The placing of lockers recessed along the corridor walls of necessity demands more space than where the wardrobes are placed in the rooms as in elementary schools. The space added to corridors due to such location of lockers would not equal the space devoted to locker rooms, in fact, it could be much less per locker. If these corridors are not used as lounging places or for social intercourse, they should be in excess of elementary school corridors only as required by the lockers and the larger size of the pupils.

Stairs are usually located at or near the ends of the corridors. The width of the stairs is often fixed by law, but in the majority of schools this only obtains where state codes are in effect. It is usually found that the corridor is from two to two and one-third times the

width of the stairs. This does not seem to be a reasonable condition. Travel on stairs is always more slow and dangerous than travel on level floors. It would, therefore, appear that the relative width of stairs and corridors should be governed by the danger point—the stairs. It is only by use of the duplex stairs used in New York City that the effective width of the stairs is doubled and made equal to the corridor width. This is a consistent design.

It is admitted that spacious corridors give a pleasing effect to a school building, but such planning entails increased initial cost which is carried over into the interest paid on bonds, increased cost of heating and lighting the space and increased cost of cleaning and maintenance, which constitute a perpetual expense.

The design of the stairs and corridors must be made together and their disposition and extent are controlled by the number of persons to be served. Various codes limit the design of stairs, but it is doubtful if they are based on any accurate analysis of the flow of people. To determine this, a study should be made by actual experiments in school buildings. Possibly this has been done but any records of such investigations are not commonly available.

The width and size of the corridor are not its only important characteristics. It should serve the greatest possible amount of floor area and to do this, all of its walls should adjoin rooms for instruction, except adjoining rooms used for toilets and special purposes.

It appears that the subject of stairs and corridors is sufficiently important, from every aspect, to justify a careful and logical analysis of their purpose and requirements.

COMPARATIVE COSTS FOR HEATING AND VENTILATING FIVE SCHOOLS AT WHITTIER, CALIF.

The school building department at Whittier, California, has compiled figures showing the comparative costs for heating and ventilating five schools. Of the five schools, four are heated and ventilated with gas furnaces in the basement and the air is driven to the rooms by motor-driven fans. In one, the John Muir School, the heat is by means of radiant fire gas heaters, two to each room, and the ventilation is supplied by means of windows and transoms.

In the latter buildings, the cost covers the gas used in the cafeteria range and the gas plates of the home economics department. The ventilation is said to be better on the whole than in the buildings equipped with the fan system. The following tabulation gives the heating costs for the months of October, November, December and January of last year and this year:

	1921-22	1922-23
John Muir	\$ 65.35	
Jonathan Bailey	\$ 92.77	100.99
Lincoln	98.51	96.86
William Penn	43.10	51.90
John Whittier	87.53	129.34

	\$321.91	\$444.44
The capacity in cubic feet of each building is approximately as follows:		
John Muir	260,000	18 rooms
Jonathan Bailey	200,000	14 rooms
John Whittier	125,000	7 rooms
Lincoln	100,000	6 rooms
William Penn	90,000	6 rooms

BUILDING AND FINANCE.

—The South Whittier school district, California has leased two acres of ground to an oil company for a period of twenty years. The initial payment was \$14,250, and it is expected that the school district will receive \$1,000 a day making it in time the richest single school district in the United States.

—State superintendent Arthur S. Cook of Maryland reports that the state expended \$12,000,000 last year. The per pupil cost was \$46.33.

—The high school teachers of Chicago have recommended that the heating, humidifying, ventilating, cleaning and lighting school buildings shall be under the immediate control of the principals.

—The Lewis and Clarke high school at Spokane, Wash., will be equipped with an Austin pipe organ having 46 stops and four manuals. The cost is \$20,000 which was raised by the students.

—Chairman Richard J. Lane of the Boston, Mass., school committee and superintendent Jeremiah E. Burke appeared before the Massachusetts legislature to secure an increase in the

(Continued on Page 89)



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*Hamlin Garland,
New York Times, Feb. 18, 1923*

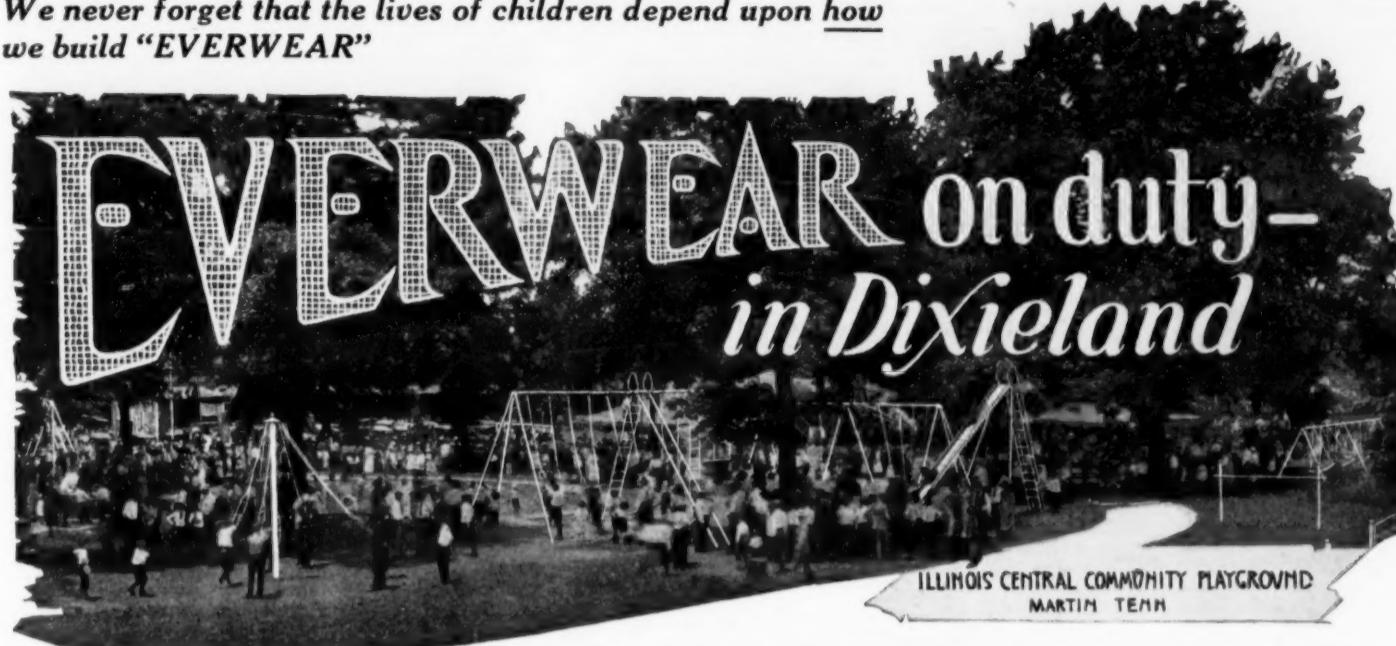
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(Continued from Page 86)

school tax limit whereby a three year school-house program, involving an expenditure of \$15,500,000 could be carried out. It was proposed to increase the tax from \$9.11 per \$1,000 valuation to \$9.88. The hearing brought out some interesting facts. The system has in use 223 portable schools housing 7875 pupils and hired quarters for 3593 pupils. The high cost of building was mentioned as the cause for the shortage of schoolhousing. In 1916, Mr. Lane stated, the cost per schoolroom was \$8,125 whereas in 1922 it was \$20,755 or an increase of 155 per cent.

The Pennsylvania legislature has appropriated \$39,500,000 for the state school fund for 1923. The fund for 1921 was \$32,000,000. The increase is due to the fact that there are now 2,500 more teachers and 188,000 more pupils, that school terms have been lengthened and that there are now more teachers who have advanced standings and therefore command higher salaries.

The Davenport, Iowa board of education started the year 1922 with a deficit of \$82,000. With the adoption of certain economies during the year the deficit has been wiped out and the board has a balance of \$50,000.

The Detroit, Mich., board of education is asking for \$14,529,150 to operate the schools during 1923-24 which is \$922,749 more than the estimated expenditures for the current year. Of this amount \$3,125,508 will come from state and federal sources, leaving the sum of \$11,403,642 to be raised by local taxation.

Revere, Mass., is building a four room school in the Oak Island district on the unit plan allowing for future additions. An addition of twenty rooms is also being made to the high school providing gymnasium and shower rooms, lunch and locker rooms and laboratories. Edward I. Wilson of Boston is the architect. The school committee has a bill in the legislature authorizing a loan of \$500,000 for further school buildings.

The Mayor of Victoria, B. C., Canada, proposes a ten per cent cut in teachers salaries. He holds that after a drastic cut in all departments of municipal government the proposed reduction is reasonable.

—Barre, Mass. An increase in population at South Barre has made it necessary to acquire more classrooms during the coming year. The problem will be solved by adding to the present buildings, or by the erection of a new building.

—Dr. N. L. Engelhardt of Teachers College, New York City, has been employed as educational advisor to the board in the erection of the new senior high school at Easton, Pa. Dr. Engelhardt will work with the architects, Michler & Snyder, in a consulting capacity.

—Dayton, O. Plans have been made for the laying of the corner-stone for the new Roosevelt High School in the near future. Messrs. Schenck & Williams are the architects.

—Boston, Mass. Deplorable conditions in school housing, and the use of insanitary portables and rented quarters, were related to the legislative committee on municipal finance recently by Richard J. Lane, chairman of the school board, and Jeremiah E. Burke, superintendent of schools. The conditions were cited in advocating the committee's bill for another three-year construction and repair program, for which \$15,000,000 is to be levied on taxable property. Supt. Burke pointed out that the three-year program means no new departure for the school department. The demands are based on actual needs, so that even if the legislature grants the request, there will be portables and rented quarters for some time to come.

—The Supreme court of Ohio has been asked to fix a definite standard for school boards as a guide in contract forms for school building work. In Washington township the taxpayers sought to prevent the board and the contractors from going ahead with a building because the contractor's bid was "unbalanced" in that its summary for materials and labor was \$7,130, on which figure the bid was accepted, whereas the sum of the items was \$14,260 for materials and labor.

—School building in Illinois reached its highest point last year according to a recent report of the State Department of Education. There were 182 school buildings built in the state in 1922, exceeding the previous records of 159 in 1921, 140 in 1920 and 154 in 1919.

A promising feature of the school building program is the fact that 49 of the schools were high schools as compared with 44 in 1921, 32 in 1920 and 13 in 1919. Seventeen of the schools were of more than eight rooms, although only thirteen of this type were built in 1921, ten in 1920 and six in 1919. There were 77 one-room schools and sixteen two-room schools erected.

—The Supreme court of Utah has been asked to grant a writ of prohibition against the state board of education restraining it from making an apportionment of school funds until the school census of Salt Lake has been definitely determined.

The dispute arose from the fact that Salt Lake completed its census in October with figures showing a falling off in school population. The city report was not filed until December, at which time its report showed a material increase over previous years, as a result of a new enumeration. Under the law the census report must be in the hands of the clerk not later than November 10th and such report must be filed with the state superintendent immediately upon its receipt.

—Bedford, Va. The county board has decided to shorten the school term by one or two months in order to economize. The board has made an effort to eliminate a deficit caused by lack of funds and failure to increase the school levy.

—Chicago, Ill. A budget of \$52,439,070 has been fixed by the school board. Of this amount, \$35,458,417 will go into the general fund from which teachers' salaries are paid.

—Akron, O. The school board has outlined a building program calling for an expenditure of \$1,500,000 for building purposes and the issuance of bonds to provide the funds.

In 1923, according to the plan, Central high, Lane and Crosby schools would be remodeled into up to date school buildings. In 1924 the new South high school building costing \$750,000, and also a new Spicer school to cost about \$220,000 would be built. In 1925 a new grade school would be built in East Akron and Henry school remodeled. In 1926, the Samuel Findley school on North hill and in 1927 the Glover school would be remodeled. By that time, Mr. Reed stated,



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the board will have reached the limit of bonds available, and a new issue will be required to meet the building demands of the 1928 and 1929 program, which includes a new High school on both North hill and West hill.

—State Supt. J. W. Miley of Kansas has notified school boards throughout the state that they do not need to employ bond houses to do their preparatory work. The school fund commission offers to take care of bond transcripts and to give prompt and efficient service on all matters of school finance.

It appears that the custom has been for bond houses to offer their services and that of their attorney to school boards preparing to issue bonds for new buildings. The bond houses would give the service free and would then expect to get the bonds when issued. The offer of the bonds would be held up until the school fund commission had no funds available for purchases. It would then be easy to obtain a rejection of the offer and the brokers would get the bonds to sell. In this way the state frequently failed to obtain good bond issues through the activities of the bond brokers and the state school fund was the loser to that extent.

—The Greenville County Board of Education of South Carolina has asked the legislature for a two-mill special county levy for school purposes. A school budget of \$50,000 is proposed with which to carry out a comprehensive building program looking to the upbuilding of the rural school plant. It was shown that rural high schools are badly needed by reason of the fact that town schools are much overcrowded and incapable of assisting the rural patrons. Many buildings are too small and uncomfortable to render them fit for further continued use. The proposed budget among others carries the following items:

Building aid, \$11,000, seven months, term aid, \$5,000. To encourage longer terms where districts meet the county funds with like amounts, \$5,000.

To establish three rural high schools, \$3,000. To aid negro schools in dire circumstances, \$1,000.

To aid high school, \$10,000. Other items include aid for adult schools, interest on buildings and fuel and incidentals.

Adoption of this plan, it is pointed out, would avoid the necessity of various appropriations during the year to make up deficits.

—South Bend, Ind. The John F. Nuner School for elementary and junior high school students is nearing completion. The building which is of the one-story type, accommodates 1200 students and cost \$450,000. Plans have been completed for a new junior high school to accommodate 1200 students and to cost \$500,000.

—Somerset, Mass. The sum of \$20,000 has been appropriated for the erection of a four-room addition at the South Somerset School.

The school appropriation for the town of Somerset has been raised from \$41,000 to \$49,200 for the year 1923.

—The city of Tuscumbia, Alabama, in February, voted favorably on the issuance of \$125,000 for the construction of a high school building.

—Extensive building programs will be in order this year in the state of Missouri. Sedalia voted on a bond issue of \$400,000; Marshall on an issue of \$399,000; Nevada on an issue of \$325,000; Pleasant Hill on an issue of \$95,000; Warsaw on an issue of \$40,000; Owensville on an issue of \$40,000, and St. Charles on an issue of \$125,000. In most of the towns cited, the bonds were approved by the voters.

—New positions carrying salaries totalling \$54,950, increases for present employees amounting to about \$5,000 more, and an unlimited number of private architects at indefinite fees are recommended by Mr. William H. Gompert, the architect appointed by the New York City board of education to reorganize the bureau of buildings.

Mr. Gompert also makes the suggestion that part of the red tape connected with preliminaries in connection with school building work be eliminated. Legislation is sought that will enable contracts for a completed building to be let at one time, instead of piecemeal, as now required.

To facilitate the preparation of plans and specifications and the awarding of contracts, Mr. Gompert suggests the elimination of the following procedures: Forwarding by secretary of notice of approval or resolutions of the board of education to the board of estimate; reference to the committee of the whole of the board of

for the school yard and athletic field.

There is much to be said on each of them—not only for Afco School Yard Fences, as shown, but also for Afco Non-Climbable Fences with unbreakable overhang for the athletic field.

Catalogue 238 gives complete information. May we send you a copy?



estimate; reference to engineers of the committee; examination by engineers, report back to the committee of the whole, action by that committee, action by the board of estimate, notice of this action to the secretary of the board of education and notice from the secretary to the superintendent of school buildings, which would obviate a delay of usually three to four weeks.

As soon as fifteen building projects are ready for assignment, it is the intention of Mr. Gompert to confer promptly with architects in private practice who are equipped to render quick service and endeavor to effect an arrangement whereby a portion of the bureau's work can be allocated on a basis of a fixed sum to be governed somewhat by the cost of similar work done in the department in the past. After the architects have been commissioned it is planned to delegate one of the associate architects to periodically visit the private offices to see that the work is being properly expedited.

—The new senior high school at Dubuque, Ia., was dedicated with an appropriate program, on March 9th. The corner-stone for the building was laid in October, 1921 and the building was completed ready for occupancy on February 1, 1923. The building is fireproof, built in the Gothic style of architecture, with the exterior walls of native stone, trimmed with Bedford stone. In addition to 26 classrooms and two study halls, the building is equipped with a library, a gymnasium, a cafeteria, an auditorium and a separate building for the industrial arts department.

The school board which brought the enterprise into being consists of R. P. Roedell, president; D. J. Murphy, vice-president; Mrs. H. E. Gratiot; Ira N. Davenport; Allen J. Kane; N. C. Gindorf; Edward J. Healy; C. W. Walton, treasurer and Leo P. Allen, secretary. O. P. Flower is the superintendent of schools. Fred F. Stevenson serves as principal of the new high school.

—Recent New York City reports show that 147,000 pupils are on part-time in the day high and elementary schools. In addition to the part-time pupils there are 210,985 enrolled in double or duplicate session classes.

(Continued on Page 93)

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Within a year in the streets of our cities-!**

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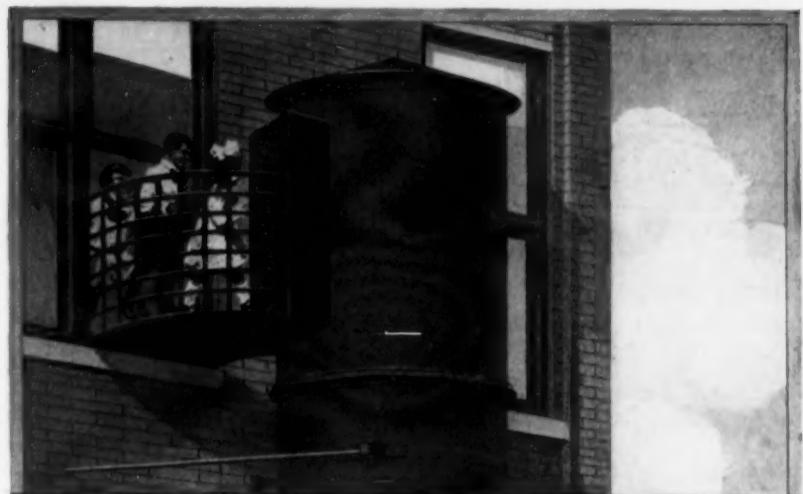
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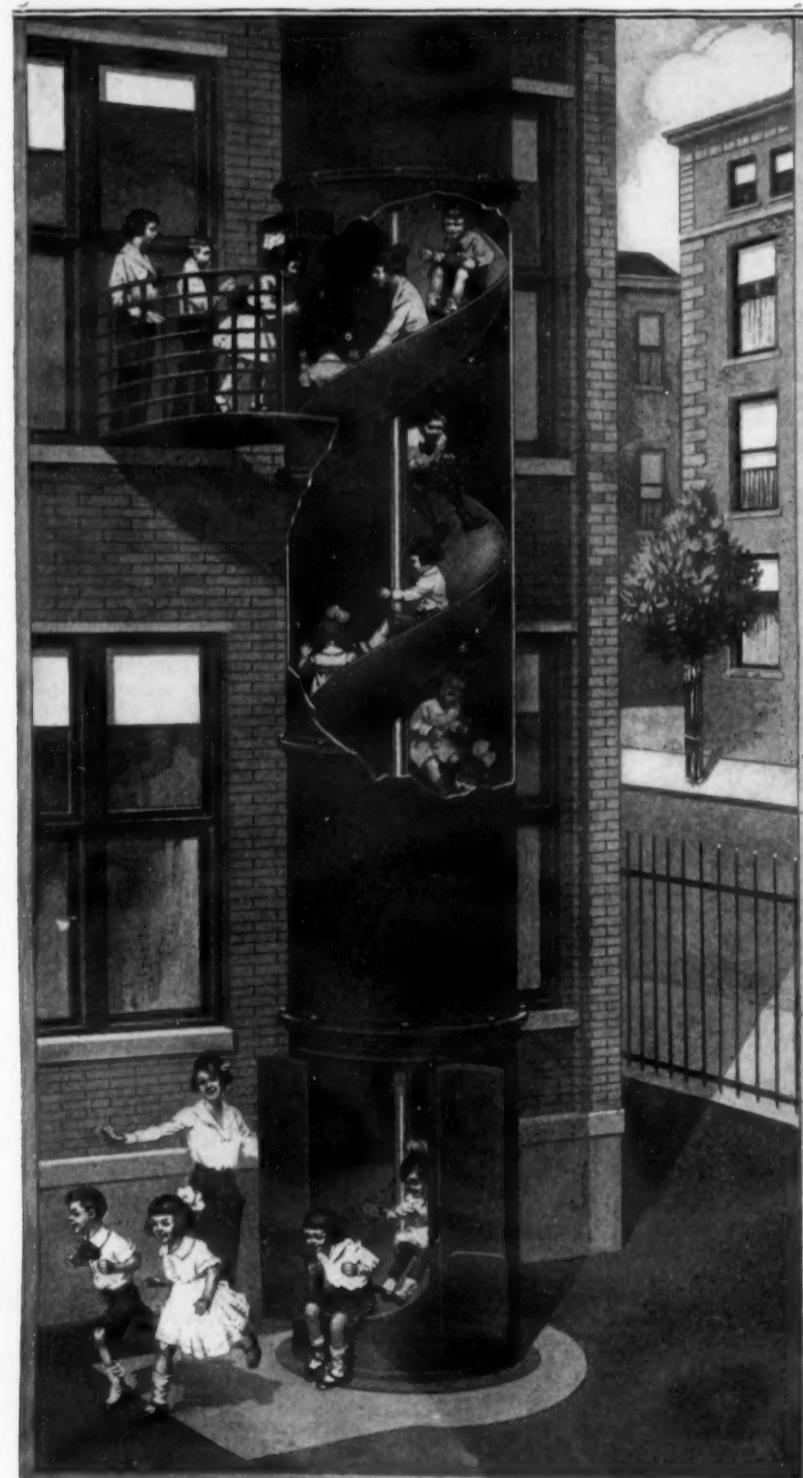
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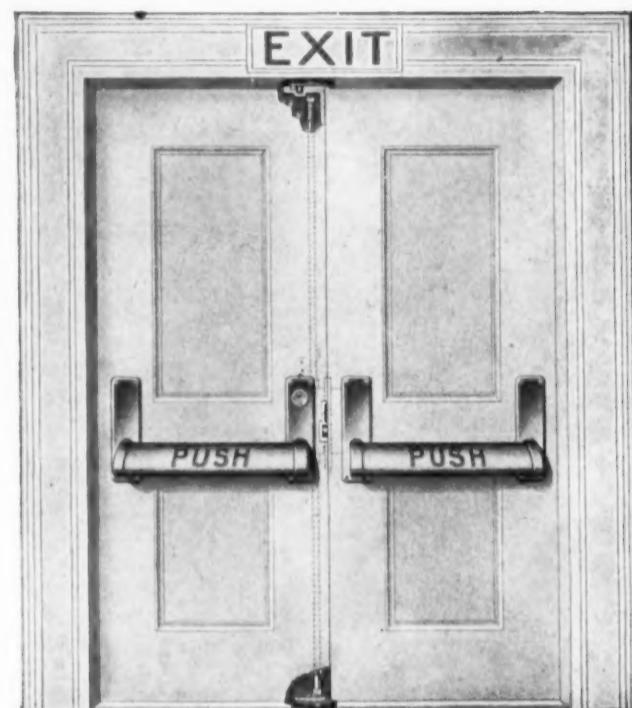


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Quick exit assured Safety provided

Members of school boards and other officials on whom the responsibility rests should make full provision for protection to life in case of panic by the use of this safety device.



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They have a wide push bar which projects only $2\frac{1}{2}$ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

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in the school in case of fire are the fire exit doors. They should be dependable even though not fireproof. At some time they will be called upon to act and then to act easily and quickly. There is always danger of wood or metal covered doors warping and swelling. At the critical moment, they may stick, causing serious trouble or even disaster.

Dahlstrom Hollow Metal doors cannot warp and swell. They can be depended upon to act freely and easily at all times.

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Local representatives in all principal cities

(Continued from Page 90)

—The Findlay, Ohio board of education has decided to issue school bonds to the amount of \$665,000 at an interest rate of 4.75 per cent.

—Watson, Pa., passed a \$50,000 bond issue for a high school by a vote of over eight to one.

—The board of education at Erie, Pa., has received bids for the construction of a new senior and junior high school to cost \$400,000.

—“Most of the school architecture of Ohio is a professional disgrace,” recently said Prof. Charles St. J. Chubb of the Ohio state university. He further said that many of the school architects of the state are in the class of the “ambulance chasing lawyers.” State Superintendent Riegel did not agree with Chubb’s sweeping charge but admitted that much money was wasted by school boards in having plans foisted upon them by unscrupulous designers.

—The school board at Bath, N. Y., has let the contract for the erection of the new high school.

—Bloomfield, N. J. On February first, six-room additions were opened at three schools. Sixteen of the eighteen rooms were immediately occupied, thus relieving temporarily overcrowded conditions and part-time classes. An addition to house a gymnasium, study hall, laboratories and 23 classrooms is planned for the high school. Plans are in progress for a building to be devoted especially to retarded classes. These classes are at present housed in rented quarters and assembly rooms.

—The new Coronado high school at Coronado, Calif., was dedicated on January 12th with a splendid program. The building is one of the best in the state and cost \$150,000. T. C. Kistner, San Diego, is the architect of the structure.

—Watchung, N. J. The voters of North Plainfield Township have authorized the board of education to erect a new school in the Greenbrook Section, at a cost of \$15,000. Bonds will be issued to cover the cost of the building, as well as the furniture and equipment. The building will occupy the site of an old structure which has been outgrown by increasing attendance.

—Bayonne, N. J. Construction work has begun on the new junior high school to cost \$1,227,000. The building will house the junior high

school pupils of the central part of the city and also the vocational school, and will be built to accommodate 2,500 students.

—Cleveland Heights, O. The Boulevard School now in course of construction will be completed within the next year. The cost of the structure will be about \$300,000.

Plans have been prepared for a new senior high school to be erected in units. The structure when finally completed, within the next two or three years, will cost about \$2,000,000.

The Taylor Junior High School has been completed and will be occupied next September. The building represents an expenditure of about \$400,000. Although the city has spent fully three and one-half million dollars on new buildings within the last six or seven years, the rapid increase in school population has made it necessary to continue the use of portable structures and part-time classes.

—Two years ago the school committee of Norwood, Mass., prepared for the finance commission and the town meeting, a statement of school building deficiencies together with a general forecast of future needs in which it was estimated that it would require from \$200,000 to \$400,000 to bring the building equipment up to present requirements; and that, in addition, the town must plan on adding from \$40,000 to \$60,000 a year to keep up with future needs, assuming the same rate of growth as during the last ten years. On recommendation of the commission, it was agreed to provide funds for finishing the high school in 1921, at a cost of \$75,000 and in 1922 to provide funds for an eight-room addition at a cost of \$80,000. A

junior high school was organized and two additions relieved the elementary schools so that the present requirements have been met. At present the high school is overcrowded and no plans have been made for meeting the approaching need for more seating for the junior high school.

A study of the building situation indicates that it would be advisable to spend \$100,000 a year for the next five years in an attempt to overcome all arrears in educational equipment and thereafter reduce the building requirements to \$50,000 a year. In sequence of acquisition, construction and equipment improvements

should take the following order:

1st year—Acquisition of sites, equipping of Balch school basement as auditorium, and beginning of the first half of the junior high school.

2nd year—Continued construction and equipment of junior high school.

3rd year—Completion of junior high and grounds, and construction of senior high auditorium.

4th year—Addition to elementary schools.

5th year—Addition to elementary schools.

The most proximate elementary school needs are two: a building to replace the Everett, and a new structure for East Norwood.

—The school board at Mansfield, O., has selected a site for a senior high school to cost \$800,000.

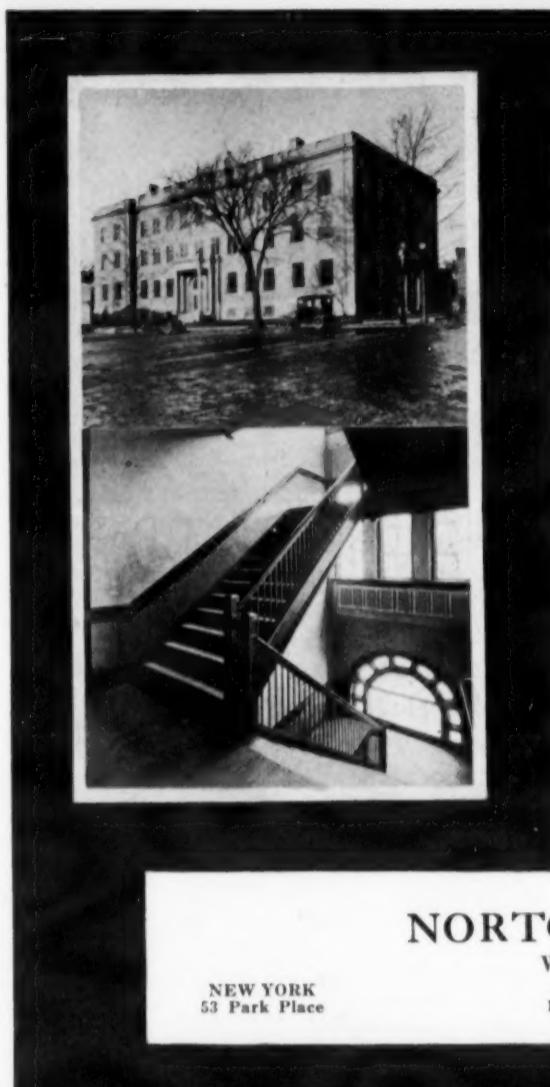
—Philadelphia, Pa. The \$15,000,000 school building program of the school board has been found inadequate to meet the needs of the school system. The increasing cost of building, including labor and material, has placed the board in a serious condition. It is now found that the original estimate will not be sufficient to take care of the expected increase in school population.

The program was adopted last November. Since then the new warehouse to cost \$125,000 has been started, and elementary buildings are now under way at three locations. Each school will cost approximately \$540,000. A contract has been let for the erection of an elementary school to cost \$546,000. With the award of this contract, the board will have under way, contracts totaling about \$2,280,000 of the program.

—At the request of the board of education, a building survey of the Rome (N. Y.) schools has been undertaken by the state education department. The details of the survey are in charge of Dr. Geo. M. Wiley, Dr. J. C. Morrison, W. D. Johnson and L. E. Sears of the state department. The survey committee will submit a report of its findings and offer its recommendations for future buildings based on the results of its study.

—Corning, N. Y. A half-million dollar junior high school will be occupied next September.

—Solvay, N. Y. Plans are in process of preparation for a junior high school building.



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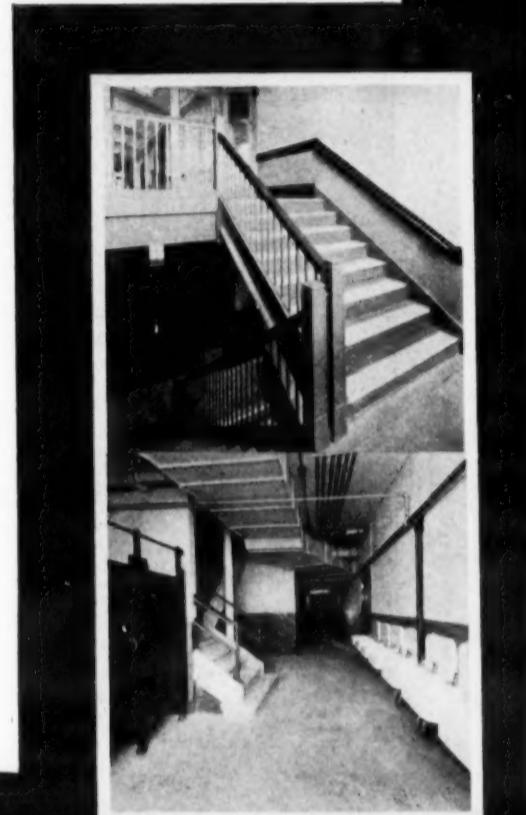
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—Superior, Neb. A new junior high school and gymnasium are in process of completion.

—Philadelphia, Pa. A recent resolution of the board of education provides for the creation of a permanent loan of \$3,000,000 and for the issuance of bonds evidencing the same. Interest at the rate of four per cent per annum will be payable on the loan semi-annually each year. The proceeds of the bonds will be used for procuring sites and erecting school buildings, and for the building of additions for several elementary and high schools in the school district.

—Reidsville, N. C. With the opening of the new school year in September, the school building program of the board will have been completed. The program includes a 46-room high school, a grammar school for white pupils and an eighteen-room grade building for colored pupils. The completed school plant will provide a seat for every pupil and will leave room for an increase of twenty per cent in future enrollments.

—Hamtramck, Mich. A contract has been let for the erection of an addition to the grade school to cost \$332,500. The building which is to be completed by November first will contain twenty rooms, a gymnasium and an auditorium.

—Laconia, N. H. The city council has approved a bond issue of \$225,000 for the erection of a junior-senior high school. Mr. P. S. Avery of Boston, is the architect of the building.

—Secaucus, N. J. The board is planning the erection of an eight-room school to be ready for occupancy late next fall.

—Long Branch, N. J. The school board has approved plans for an eight-room primary building and for a four-room addition to the school for colored children. The cost of the primary building will be \$135,000 and that of the addition \$60,000.

—Mamaroneck, N. Y. The town has purchased a site of twelve and one-half acres for a junior-senior high school. The building will accommodate one thousand students and will cost approximately \$600,000.

—The Rye Neck School District, Mamaroneck, N. Y., is erecting a high-and-grade school costing \$240,000.

—Harrison, N. Y. The school district has purchased a site of fourteen acres for a high school building to cost \$25,000.

—Elmwood Place, O. An addition consisting of four classrooms, domestic science and manual training rooms, playrooms, auditorium and gymnasium, has been erected at an approximate cost for land and building, of \$97,000. The building supplements the present twelve-room structure and is erected on the same lot.

—Saratoga Springs, N. Y. An appropriation of \$400,000 has been made for the erection of a new high school to accommodate pupils from the eighth grade upward. Construction work will begin as soon as weather conditions permit. Coffin & Coffin, New York City, are the architects of the building.

—Baltimore, Md., spends approximately 23 cents of every dollar of tax money for the operation of the city school system. In other words, nearly one-fourth of the city's income from taxation goes for the education of its children. This year it is planned to raise \$20,654,376 by taxation. Of this amount, 4,636,490 will be spent for operating the schools.

—Indianapolis, Ind. By a vote of 16,000 to 1,500, parents of school children have approved the building program of the board. The program which seeks the elimination of portable buildings, calls for the erection of six new grade buildings and an extension of high and grade school facilities.

—The building program of the St. Louis County (Minn.) schools will be curtailed as much as possible this year. Emergency work will be undertaken but no elaborate building program will be attempted. Two new buildings are to be erected to replace destroyed structures.

—Columbia, Mo. The building program of the schools will be completed by September, 1923. The erection of a junior high school building is still to be undertaken.

—Portland, Ore. The school board is in need of a fund of \$5,315,000 with which to replace portable schools with permanent buildings.

—New Castle, Pa. The school board has fixed the school millage for 1923 at twenty mills, with a per capita assessment of \$3. The new rate is an increase of four-tenths of a mill

over the 1922 rate.

—The school board at Elgin, Ill. finds that it will encounter a deficit of \$47,000 for the fiscal year of 1923-24. The board is permitted to levy a two per cent tax for the education fund and $\frac{1}{4}$ of one per cent for the building fund. By a referendum vote the latter may be increased to three per cent. The board has ordered the referendum for an increased tax levy.

—The charge is made by Walter S. Hallahan, state tax commissioner, of West Virginia, that the assessments are kept down in several of the tax units in order to compel a larger share of the state fund for school purposes. He urges honesty in property valuations.

—According to recommendations made by T. R. Cole, superintendent of the Seattle schools, an increased expenditure of \$1,085,000 will be required for new school buildings next year. This will mean a four mill addition to the district legal tax of ten mills plus 4.15 mills levied for bond interest and redemption.

—A special committee of the board has made a study of the types of buildings and methods of construction as carried out in Seattle during the past few years under the direction of school Architect F. A. Naramore. The study has been made in furtherance of the plan to bring Tacoma schools up to the standard through a general building program.

SCHOOL ARCHITECT APPOINTED.
E. A. Christy, architect for the city of New Orleans, La., has been engaged by the Orleans Parish school board for an indefinite time, as supervising architect, at a salary of \$5,000 a year. This is a newly created office and presages a large building program.

One of the first duties of the supervising architect, according to an announcement of Fred S. Zengel, chairman of buildings and grounds for the board, will be the preparation of a comprehensive school building program. Pres. J. A. Fortier, in a letter to the board, has outlined the new policy of that body, and has recommended the razing of all school buildings with fire hazards, and the erection of new structures to take their places. A motion authorizing the board to issue \$2,000,000 in school bonds was a feature of the board's meeting.

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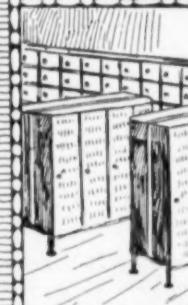


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Michigan Association Meets

School Boards and Superintendents Confer

H. C. Daley.

The fiftieth annual meeting of the Michigan Association of School Superintendents and School Board Members was held in Ann Arbor, March 28, 1923. President O. W. Haisley, Superintendent of Schools of Niles, presided with skill and dignity throughout the sessions. About two hundred fifty members were in attendance.

The minutes of the last meeting were read and approved. The following committees were appointed:

On Resolutions—

Superintendent T. J. Knapp, Highland Park.
Secretary M. E. Ratliff, Cassopolis.
Superintendent E. O. Marsh, Jackson.

On Nominations—

Superintendent C. H. Griffey, Adrian.
Secretary R. W. Cooper, Lansing.
Trustee Paul Mason, Reed City.

The main topic for the forenoon session was School Buildings. The first number was an address on Selling a Building Program by Superintendent L. W. Fast of Mt. Clemens in which these steps were recommended.

1. A complete survey of both needs and resources.

2. A presentation of all the facts before the Board of Education.

3. Selection of an architect, preferably not by the competitive method.

4. A short intensive campaign of from two to four weeks through the use of newspapers, clubs, circulars, mass meetings, and by personal work among influential citizens, securing their aid as chairmen of committees to plan meetings, make and use preferred lists of voters, and furnish transportation to the polls during the latter part of election day. Mr. Fast advised making the first campaign a successful one on the ground that failure tends to divide the community and thus to harm school interests.

Superintendent F. W. Frostic of Wyandotte then spoke on the topic, The Educator's Contribution to Schoolhouse Planning. He declared the superintendent to be the one individual that knows all the facts but that the educational insight of the board members and other influential citizens should be used. He said that the needs of the community as well as the needs of the school should be considered and that the local situation must govern. He showed how by taking forethought additions could be made at some later time with comparatively little waste. He considered the fundamental things in all schoolhouse planning to be the pupil, the number of pupils, the capacity of the proposed building to accommodate students, not the number of rooms. "Determine," said he "the amount of floor space devoted to each activity and the relation desired of one to another."

A lengthy address filled with concrete suggestions was then given by J. L. Hamilton of the firm of Perkins, Fellows and Hamilton, Architects, Chicago. Mr. Hamilton said, in part, "I wish to take this opportunity to emphasize the great importance of the inter-relations of the architect, the superintendent and members of boards of education. To us has been given the responsibility, in the years since the war, of determining the expenditure of an immense sum of public money. This affords us an opportunity for service in the cause of public education such as seldom, if ever, occurred before. There have been many evidences of late that some inquiring minds have sought to question whether or not the large sums of money spent for education were bringing the returns which should be expected.

"In order that we may do our part of the work to the best of our ability, it is most essential that we should have a thorough understanding of each other's aims, organizations and processes. You should properly require of your architect that he understand the principal elements of school organization entering into the problem which he is called upon to solve,—and your architect has a right to expect of you that you have a clear visualization of the completed building or parts of the building illustrated by the drawings which he presents for your examination and comment. Without this degree of mutual understanding, a marked success of your building project is unlikely and you may find that you have to reconstruct your theory of organization to fit in a school plant which is not correctly designed for it.

"We are properly required to exercise a careful economy in the expenditure of public funds for building purposes but I do not concede that this requirement compels us to build school buildings of a purely utilitarian nature without careful attention being given to artistic expression, both interior and exterior.

"I wish to say here that I do not believe in the duplicate or multiple use of a single design for a school building. A certain degree of standardization is advisable and has no objectionable results, but the degree of standardization obtained by building two or more buildings from the same plan does not result in an economy which justifies the sacrifice to art and progress which inevitably follows this method. Too often each new school building is built like the last one, without the original and fundamental thought which each fine new public building deserves to have.

"Nearly all of our new school structures are designed with large provision for future expansion, many, in fact, can be only partly built with funds immediately available. Where the welfare of the children would not be seriously impaired, I believe it is preferable to defer construction of portions of a school plant rather than cheapen the quality of the whole structure, in order to meet a temporary emergency caused by high building costs and insufficient funds.

"The selection of materials for school building construction is influenced now as never before by the cost of transportation. It is very important that careful attention be given to the use of such suitable materials near at hand in order to avoid the large expense entailed by bringing other materials from a distance."

By a vote of the association Mr. Hamilton continued his address at the opening of the afternoon program. Many questions pertaining to ventilation, windows, floor and roof materials, etc., were answered by the speaker. The main topic for the afternoon session was **The Teacher**.

Professor D. H. Roberts of the Michigan State Normal College spoke on the first sub-topic, Raw Material and the Pre-requisites for Teachers from the Standpoint of the Teacher Training Institution. Professor Roberts discussed the topic from three viewpoints (a) The ideal, (b) The situation as it is, (c) What are we to do about it? "We should like," said he, "as raw material:

1. All "A" students, skillful in the use of English.
2. "A" intelligence.
3. Excellent health and physiques.
4. Good breeding and satisfactory social experience.
5. Fine personalities with knowledge of how to meet people.
6. Initiative.
7. Sympathy and love for children, especially for those who need it most.
8. Natural tact and common sense.
9. Moral character.
10. Clean minds and clean habits.

"We get," he told his auditors, "not the ideal but everything that graduates, the larger part from homes of the middle or lower class, without social experience, many of whom have no intention of using the profession except as a stepping stone."

The speaker declared that to eliminate even the poorest, twenty-five per cent of the students received, would necessitate the filling with wholly untrained material the places they would otherwise occupy at a later time. However, he said the "D" students sometimes make "A"

teachers. He advocated the elimination of one year courses and the payment of equal salaries to elementary and high school teachers of equal preparation and ability.

Superintendent Dean Spencer of Monroe treated the same sub-topic from the standpoint of the superintendent. In pungent terms the speaker touched upon the raw material, the training schools that mould it, and the superintendents that put on the finishing touches. He eulogized the classroom teacher as of greater worth than the superintendent himself. He expressed a wish that superintendents might become so filled with the spirit of the profession that they would refrain from doing what they would not countenance as proper conduct on the part of this "raw material."

The second sub-topic, Stimulating Teacher Growth, was handled in a spirited manner by Superintendent L. L. Tyler of Muskegon Heights, who said in part, "The Stimulation of teachers along purely professional lines is being cared for by definite incentives in the way of increased remuneration to teachers who carry on definite lines of study in extension courses, summer schools, or by correspondence. Excellent results are being obtained in this way and no school system of any considerable size ought to overlook the unusual values to be gained by properly playing up these profession auxiliaries. Whole teaching corps have been revitalized, uplifted, and made alive and efficient by a properly organized recognition of these sources of professional growth. To allow a certain fixed sum for mere attendance at summer school may be worthwhile but it is a mere beginning of what may be done. To allow a definite sum for each university hour of credit earned is a much more equitable and effective means of promoting professional growth in service.

"At present, towns of any considerable size may develop extension courses which, in my judgment, afford a splendid mental and professional challenge to the growing teacher.

"There is, however, another important side of this whole question. While it is probably true that few teachers are in danger of becoming over-professional in their devotion to their calling, nevertheless, there is plenty of evidence to the effect that multitudes of teachers neglect the fine cultural, human interests that lie entirely outside a purely professional study. A teacher, of all persons, should be most alive to the great world of creative literature. She should be a most discriminating and fruitful reader, gaining much joy and soul enrichment from her friendship with great authors. Professor Palmer, in his book 'The Ideal Teacher,' gives us one of the four great pre-requisites that the teacher must have an already accumulated wealth. He refers to these stores of riches which she has gleaned from the great books of the world. If a teacher would grow in service, let her go to the writings of the great for continual intellectual awakenings and spiritual reinforcements. The teacher should also grow continually in her knowledge and appreciation of art products, whether they be great paintings, architecture, sculpture, or music. The teacher who does not consciously endeavor to enrich her knowledge and stimulate intelligent responses to the beautiful is losing one of the great reinforcements of her own personality, but also failing to buckle on one of the most constantly usable weapons of her profession.

"A real teacher who would grow should be alive to the great personalities not only of history, but of the present time. She should be a careful student of significant current events, not a reader of head lines and of the morbid details which crowd the pages of our daily press, but rather one who seeks with watchful eye, stalwart or authoritative, intellectual friendships in the day's work who throng the busy places of the earth and by making friends of the men and women who are shaping the real world of conquering life.

"The teacher who would grow must respond to the inspiration of great personalities. The teacher who is alive has a responsive ear to the voice of nature. She reinforces her physical powers, and fills her mental interest by spending much of her leisure time out of doors."

The Home Teacher was next discussed by Superintendent Lawrence vanden Berg of Grand Haven. The interest in this discussion was largely centered in the results of a brief questionnaire from which 48 replies were received. The speaker reported "I found that there were three school systems in the group having no home teachers, these cities having teaching corps of 10, 33 and 58. The number of home teachers in the other communities varied from a

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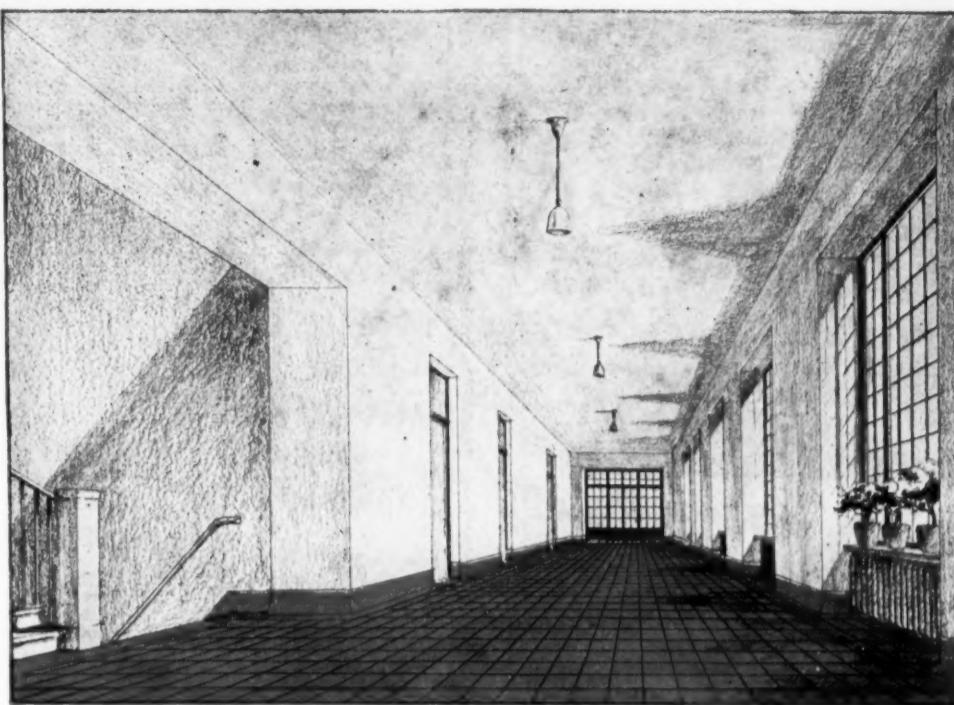
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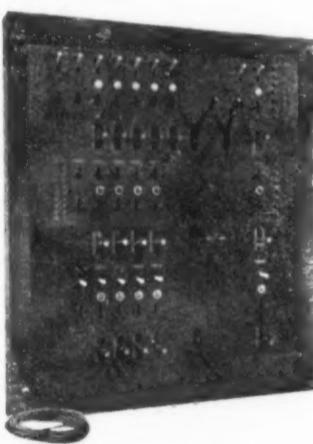
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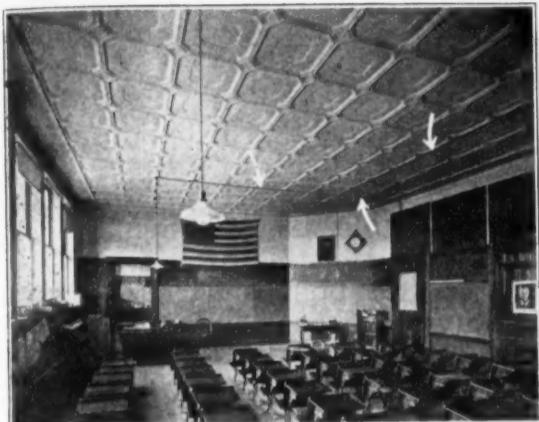
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(Continued from Page 96)

trifle over one per cent to 62 per cent; several schools having more than one-third home teachers and a large number from 20 per cent to twenty-five per cent. The median fell at 24 per cent.

Answering a question as to the satisfactory results of the home teacher as compared with the foreign teacher, there was a decided reply in the affirmative. In some instances reports were made that they were much more satisfactory than an equal number of out-of-town teachers. One superintendent said, 'Yes, they have to be to keep their jobs.' Only two superintendents replied flatly in the negative.

The third question was in the form of a request for suggestions that might be used in the construction of this paper, and notwithstanding the fact that the large majority spoke highly of the teaching ability of their home group, they attached several suggestive negations which I wish to give you, which are as follows:

1. "They are usually older and thus more set in their ways.

2. "They frequently have trouble in their discipline.

3. "They are willing to teach at any price.

4. "They are hard to get rid of when poor.

5. "They have so many home duties that too much of their time is taken away from school. They are inclined to feel that their whole school duty is contained in the classroom and confined to classroom hours.

6. "Home teachers are prone to peddle school gossip about the town.

7. "Home teachers are inclined to be more or less set in their opinions regarding certain social groups and are less democratic. Family histories play an important part in their treatment and estimates of children.

8. "Deeply rooted interests in certain community groups tend to make home teachers less social with out-of-town members of the faculty."

Expressions in favor of the employment of the home teacher were as follows:

1. "The home teacher understands the community and its people much better and I feel that they have a little more interest in promoting the welfare of the school.

2. "We are more than pleased to employ the home teacher who has had at least two years of successful teaching experience elsewhere.

3. "We require of such teachers the same qualifications that we do of the regular teacher and, in addition, exact that they shall have made good in teaching.

4. "The home teacher, if her native quality is good, is likely to stay longer in her position and thus give the school better service. The imported teacher seems always to be uneasy; she rarely stays long enough to develop well.

5. "Some schools owe their superior standing through a period of years to the willingness on the part of certain teachers to remain in their home town in the face of much better financial offers to teach elsewhere.

6. "The home teacher is ready to begin work on the first day of the year, and each term, and is not asking the superintendent to leave a day early or the privilege of returning a day late at vacation periods.

7. "The home teacher may assist the non-resident teacher in acquainting herself with the eccentric parent or the peculiarities of other meddlesome local individuals.

8. "Another said, 'Some of my best teachers in the grades are home girls and from some of them I get the best cooperation. With the majority of home girls their interest and efficiency is far superior to the floating teacher who desires not more than two years in a place and whose principal interest is centered in new experience and matrimonial possibilities.'

9. "If the custom of employing the home teacher prevails, it would be easy to influence many of our best girls in high school to get into teaching, and take them back into our own system."

Superintendent vanden Berg then reviewed the criticisms pro and con, concluding: "It is possible to overload a teaching force with home talent, not because they are not good teachers, but because being an expert social service, it is difficult in a community to find the proper qualities of specialized skill in all departments at the time when needed. No real need of the school should be sacrificed in order to make room for home talent. I would say the home teacher is a sound proposition if carefully selected."

Attorney W. N. Burns of the Niles board of education discussed The Teacher and Her Contract. He said the contract should be written by an attorney, that it should be definite and complete. He likened the position of the board in the matter of teacher contracting to that of the directors of a corporation in hiring employees, drawing the conclusion that the contracting and releasing should be the work of the superintendent. He said the most important things, those of the spirit, cannot be written into the contract. He said the teacher should earn more than her salary, otherwise there was no advantage in hiring her.

These topics were further discussed by President P. R. Cleary of the Cleary Business College and Superintendent W. G. Coburn of Battle Creek. Professor Cleary spoke as a member of the Ypsilanti board of education. He said that we receive from our teachers in proportion to what we pay them and that at present our standards of what we should receive and of what we should pay are both too low. Boards should pay a salary sufficient to attract into the profession the brightest minds and then pay sufficient to induce them to stay there. Teaching should be made attractive by the salary at and from the beginning. He approved of the merit plan for the promotion of teachers. He declared that we may set the standard of merit where we will but pay the price and the numbers will not be depleted.

Superintendent Coburn said that he liked to have teachers feel that they belong to a profession and that teachers must have abundant specialized training.

After a banquet at the Michigan Union, three great addresses were furnished by the Educational Department of the University of Michigan as the Short Term Institute program for this year. The speakers were, Frank R. Slutz, Principal of the Marine Park school; Otis W. Caldwell, New York City and R. L. Cooley, director of the Vocational School, Milwaukee, Wisconsin.

The Secretary read a summary of the history of the fifty years of activity of the association as gleaned from the records beginning in 1874 showing, largely by extracts from the minutes, the progress made in many lines of educational theory and practice.

FOUR IN ONE *Light*



ABSENCE of glare and perfect light distribution make the Four-In-One the ideal light for school-rooms. Glare is the relentless enemy of children's eyes, and is often more harmful than insufficient light. Glare causes eye-strain which soon causes defective eyes. Greater contentment of the pupils and better work result from proper lighting such as is furnished by the Four-In-One Light.

The Four-In-One most completely solves the problem of a highly-powerful, properly-toned light. It is so scientifically constructed that no ray of light is lost. Its light source is the Mazda "C" lamp, the most economical light known. It is bug-proof and dust-proof, which guarantees full lighting value at all times and saves in upkeep.

Our service department will gladly furnish architects or school boards with complete blueprints and specifications showing model equipment for the proper lighting of every location.

THIS SERVICE IS FREE.

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432 East 23rd Street

New York

Superintendent T. J. Knapp of Highland Park read the report of committee on resolutions.
REPORT OF THE COMMITTEE ON RESOLUTIONS.

Owing to the fact that this body is a part of the Michigan State Teacher's Association, which in February published resolutions passed during the holidays at Lansing, your Committee feels that only a short report is required. Your Committee congratulates the Association on the unusually large number of school board members present at this convention, and hopes that this favorable growth may continue.

Be it Resolved:

I. That we, the Association of School Superintendents and School Board Members, in convention assembled, do express our belief in and approval of adequate support of the State schools, particularly the University and the normal schools. We urge upon the legislature a favorable consideration of the professional and material needs periodically presented by the Board of Regents and by the State Board of Education, and we recommend a policy of non-interference with these Boards, who are more capable of determining their programs and policies than any other body;

II. We commend the progressive and courageous stand taken by State Superintendent Johnson in his attempt to secure modern legislation. His plans to equalize opportunity for all the children of the state, to be known as the census-enumeration-valuation distribution plan, should not be opposed except by those who have better plans for accomplishing the same thing;

III. We commend the officers of this Association and the speakers for the excellent program, and express our gratitude to them, also to the University and any other bodies or individuals who have helped to make this meeting possible and successful.

E. O. Marsh

Dr. M. E. Ratliff

T. J. Knapp, Chairman.

After the adoption of the resolutions as read, the committee on nominations reported;

For President—Harvey B. Wallace, President of the Board of Education, Highland Park.

For Vice-President—J. M. Lindemuth, Superintendent of Schools, Hudson.

For Secretary—H. C. Daley, Director of School Surveys, Highland Park.

These nominees were unanimously elected.
THE MINNESOTA SCHOOL BOARD CONVENTION GIVING IMPETUS TO ADMINISTRATIVE EFFICIENCY OF NORTHWEST STATE.

Every county in the state was represented, and four hundred school board members, were present, at the St. Paul Convention of the Minnesota School Board Association.

President Victor E. Anderson, in a keynote address, discussed the tendencies which attended the administration of the schools, and pointed out the necessity for greater economy as well as the absolute need for more intense service on the part of the professional factors. Other addresses were designed to inform the delegates on the vital considerations in school administration, the value of cooperation between state and locality, and the general needs in the direction of higher standards in school service.

The meeting was characterized by a series of resolutions which gave expression to the general attitude of the school boards throughout the state on financial and legislative matters.

Time for Retrenchment at Hand.

Along the financial side of school administrative effort the convention gave expression to the following preamble:

"The cost of our public school system in Minnesota has reached a point, from which reductions will have to be made, or the entire structure is in grave danger of complete breakdown. We have been carried away by our enthusiasm, and many unnecessary and useless frills and fads have come into our school activities.

"The time for retrenchment is at hand. The teachers should bear their just share in the retrenchment of such costs and it is also essential that the efficiency of our schools be greatly increased. Fundamentally there should be the fullest co-operation between the school boards and the teachers and we pledge our united support and aid to the end that our schools be increased in efficiency and at the same time reduce the cost thereof. We therefore feel if this is reciprocated by the teachers there will be no need or demand for legislation to limit the teacher's load, to fix a minimum

wage, or to provide a teacher's tenure law and fully believe the best results can be obtained by the free and fair play between the teachers and the school boards of the state.

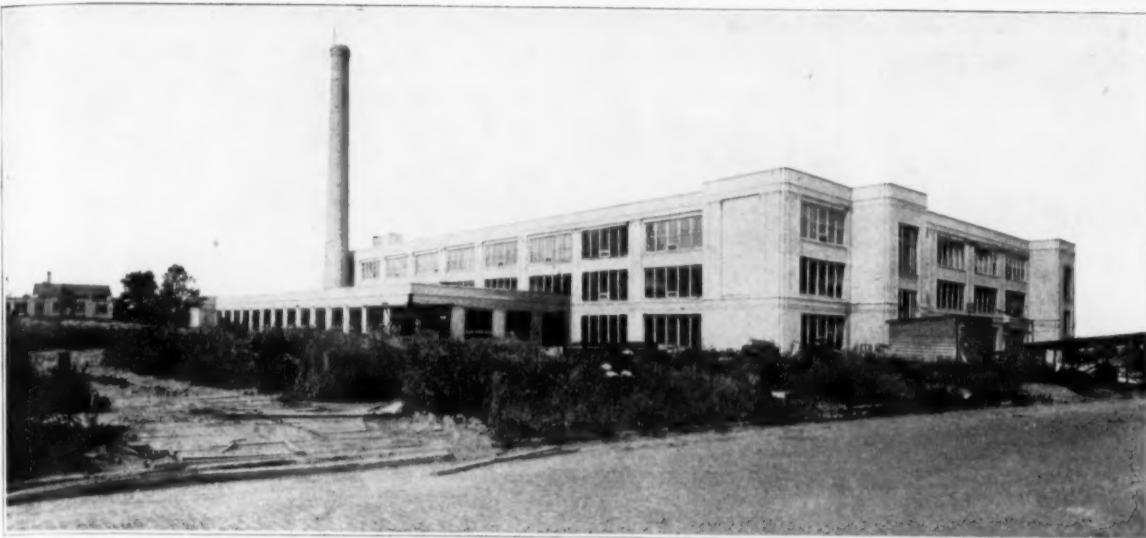
This was followed by the following resolution:

"In view of the present prevailing high taxes and the ever increasing cost of our public school system, we view with disfavor any new or additional departments in public schools or additional expenditure for supervision. The school boards throughout the state should exercise the strictest economy, thereby reducing to a large extent the cost of public education, which we feel can be accomplished without lowering the standard of our schools. That during the present economic crisis, provision should be made for increasing the number of pupils to each teacher employed in our schools and we therefore call upon the State Department of Education and the superintendents and others in charge of administering education in our schools to require and do less supervising, thereby greatly lowering the overhead cost now prevailing in virtually all the schools of the state. We also recommend to the school boards of the state that teachers' wages be reduced approximately to the same extent, and amount, that was recommended a year ago. (In order that the school boards of the State may know the action and recommendation made a year ago, we deem it advisable to insert the same in this report.)

"This association recommends to all school boards of the state that in making teachers' contracts for the year 1922-23, that they have in mind the general deflation that has taken place in agriculture and business throughout the country; the ever mounting tax rate and this association believes the teaching profession should materially assist in the general readjustment and that all boards insist on a substantial reduction in salaries from the minimum salary established by the department of education in 1920."

The convention also requested the legislature to provide for the deficiency of 26 percent in the state school fund. It condemned the proposal to limit the state aid to \$40 as this would materially reduce the total aid and deprive many

(Concluded on Page 109)

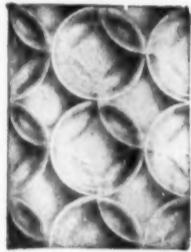


THE
RAYEN
SCHOOL
YOUNGSTOWN
OHIO



PRESSED LENS GLASS, set in metal sash, has been signally recognized as THE medium for better daylighting; for no curtailment of light occurs here, as would be the case, were window shades necessary. Nor is there glare.

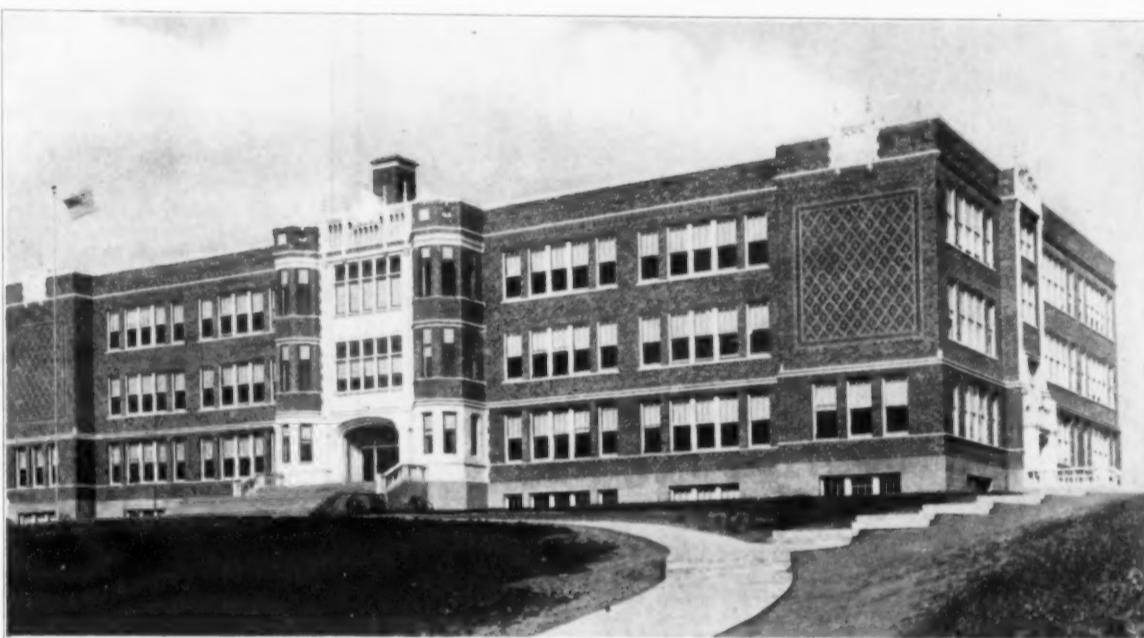
PRESSED LENS has been similarly installed in steel sash, in schools from Bridgeport, Conn., to Albuquerque, New Mexico.



ONE OF
THREE NEW
SCHOOLS IN
CEDAR RAPIDS
IOWA

THREE such notable installations of PRESSED LENS GLASS indeed register the emphasis being placed upon correct daylighting of school rooms.

Specialists in School Building design are specifying PRESSED LENS GLASS as standard equipment. The reason? It is the only glass which by scientifically redirecting all daylight rays, eliminates all glare, and makes window shades unnecessary.



CONTINUATION
SCHOOL OF
MILWAUKEE
WISCONSIN



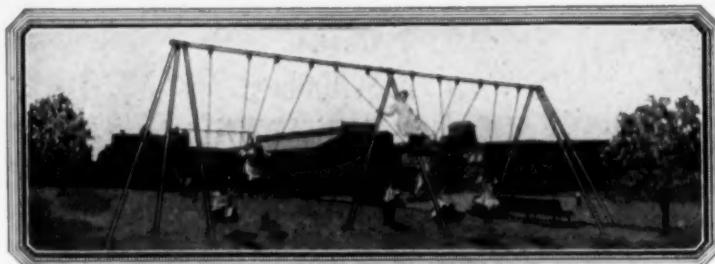
PRESSED LENS GLASS is installed in all transoms and upper sash on the east, south, and west elevations, is increasing daylight illumination while removing the glare of the sun, making shades again unnecessary. It is self-draining and easy to clean. It has no equal for ceiling lights and is essential wherever obscure glass is required. All sizes are carried by leading jobbers, coast to coast. Free sample.

Let our Service Department help you, too, to solve the perplexing problems of light refraction and reflection.

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Rubber Grips Make MEDART Swings Safer

In all Medart Playground Apparatus there are outstanding features resulting from many years of experience. The rubber-covered hand grip for swings is an example—it assures greatest safety and comfort. Children will use a short-link chain swing that pinches their hands but not as enthusiastically or as often as they will use the Medart Swing with its long links and vulcanized rubber grip.

The links are $9\frac{3}{4}$ inches long, drop forged and made heavier in the center. Special seat brackets prevent tilting. Roller bearing fittings are unconditionally guaranteed for 3 years—many have given constant service for fifteen years. Rollers and shafts are of hardened steel.

MEDART

PLAYGROUND EQUIPMENT

The three principal factors in playground equipment are: SAFETY, SERVICE and DURABILITY. The thought devoted to the perfection of these three factors is exemplified in every piece of Medart Playground apparatus. As a consequence, Medart Equipment has been, for fifty years, the first choice of civic officials, school boards, physical instructors and others entrusted with the purchase of playground apparatus. The price is much lower than you would expect for apparatus of such outstanding merit.

Send for Catalog "M-5"

It illustrates the full line of Medart Playground Equipment. Also contains information on playground planning, based on our long experience in this work. This catalog sent free on request.

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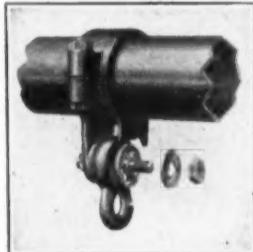
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Also Manufacturers of Steel Lockers. Catalog on Request



Supporting steel links are tested to 2500 lbs. tensile strength. Note bracket supports which prevent tilting.



This roller bearing fitting, at point of greatest strain, is acknowledged the safest and most serviceable ever devised.



For the new generation

Some one has said—

"Education is very much a matter of environment." Preparation for life is gained not only from books and lectures, but from the surroundings with which the student comes in contact. School interiors, of necessity, lack the intimacy and variety of the home, making it all the more necessary that every appointment be selected with great care.

Aside from the durable qualities of oak, and the ease and low cost with which oak floors may be kept clean and in good condition, an

Oak Floor Is a Beautiful Object in Itself,—

a bit of the wealth of Nature brought into the school, and an influence for good taste upon the minds of the students.

Modern oak floors are standard, and the wonderfully varied grain cannot be imitated.

Interesting information on the uses, advantages, and proper care of oak floors, is contained in three booklets, in colors, which will be mailed to school board members and school officials on request.

OAK FLOORING BUREAU
1067 Ashland Block Chicago



In this modern school building at Cleveland, Ohio, and in the Ladies Building, Purdue University shown above, OAK FLOORS are in use, and give permanent satisfaction.



Put your flooring problems up to our experienced flooring experts. We will gladly serve you

FLOORS

FOR EVERLASTING ECONOMY

DURAND STEEL LOCKERS—

DURAND Steel Lockers, because of their evident quality, handsome unobtrusiveness, and fine alignment add to, rather than detract from, the good appearance of hallways or classrooms.

It is, for this reason, often unnecessary to provide special room for their installation. It is desirable to give them a well-lighted and convenient location. It is desirable to have them on view, because of the favorable impression they give of efficiency and order.

Being almost impossible to deface or injure, they keep their good appearance. A Durand Steel Locker that shows any trace of age or wear is a rare sight.



DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Bldg., Chicago

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districts of any aid. The recommendation calls for \$50 as the limit. The non-resident tuition fee was increased from \$5 to \$7. A committee of three was appointed to investigate the charge of unreasonable prices for textbooks, furniture and supplies.

Owing to the doubt expressed as to the legality of paying the cost of sending delegates to the convention out of local school funds the delegates urged the enactment of a law legalizing such expenditures. It was here urged that the school board organizations serve a purpose and have been the means towards creating a better appreciation of school administrative efficiency, hence, warrant the cost involved to maintain them.

Pledging Support of Association.

The convention also gave expression in favor of a better definition of the function of school boards and responsibility assigned to them, in the following:

The public school system of Minnesota though one of the best in the United States, is far from perfect and changes and improvements therein must be promptly effected. In determining the future policies of our public schools, the school boards of the state should thoroughly consider the future needs of the state and the reduction and more equitable distribution of the cost of our public school system. A great deal of the present difficulties and burdens in maintaining our schools are due to the fact that others have determined what is primarily the job of the school boards. Organizations have been and now are being perfected of the school boards so that in the future they will have and be able to speak through organizations as effective as any other group in education or any other activity. We pledge our full support to a revision and improvement of our school system and dedicate the efforts of the Minnesota School Board Association to secure such desired and much needed results.

This was followed by a resolution asking that the legislature make due provision in the appropriation act for school purposes, that state aid be not made a condition dependent upon any requirement for any specified courses of study or additional buildings, firmly believing that

during the present financial crises, additional expenditures should be both curtailed and prevented.

Officers and Directors.

The following officers were unanimously elected:

President—Victor E. Anderson, Wheaton.
Vice-President—M. W. Williams, Lanesboro.
Treasurer—A. A. Haagenson, Barnesville.

Secretary—John E. Palmer, Ortonville.

The following Board of Directors was nominated by the delegates in attendance from each Congressional District and elected by the Convention:

First District—N. V. Torgerson, Adams.

Second District—B. B. Sontag, Heron Lake.

Third District—N. S. Nelson, Hutchinson.

Fourth District—Harold G. Lains, North St. Paul.

Fifth District—A. P. Ortquist, Minneapolis.

Sixth District—O. B. Peterson, Laporte.

Seventh District—B. K. Savre, Glenwood.

Eighth District—A. E. McKenzie, Virginia.

Ninth District—J. P. Wolfe, Moorhead.

Tenth District—Dr. John Sander, Lindstrom.

during the recess or noon hour and clandestine meetings between the boys and girls are engaged in.

—A school city corporation is a big business organization and should be conducted by methods similar to any other business concern. I realize that the product manufactured by the schools cannot be measured as tangibly as other manufactured products; but the same business principles can be applied to our school accounting as are applied in cost-accounting in other business enterprises," said W. W. Borden of South Bend, Ind. recently.

—The board of education in the great majority of our American cities corresponds to the board of directors in a large business or manufacturing concern.

—“An aspirant for a position on the school board should have a motive for running just the same as has any other seeker of public office. He should have some purpose which he hopes to accomplish by being elected to the board of education and he should be willing to let his constituents know just what those purposes are else he is unworthy of their confidence and support.” So argued the editor of the Lincoln, Ill. Star during a recent school election campaign. “Experience at school elections in by-gone days has taught the public this axiomatic principle and the laws in the past score years have been modified with the intent of putting school elections on an open and reasonable basis, so that they might represent some consideration on the part of the voting public as in sharp contrast with a last moment outburst of emotions so frequent in the old days.

—Lorain, O. The school board plans the assignment of school boys as traffic cops in front of buildings where no policemen are stationed. The boys will take their places in front of the buildings during opening and closing hours.

—The grand jury recently returned an indictment against the county board of Knox County, Tennessee, charging violation of the school laws in exceeding the budget of the high and grammar schools of the county. The board is composed of six members.

—Yakima, Wash. The board has adopted a policy which seeks to keep salaries at the present high level. An attempt had been made to



—Emma L. Murray, the only woman member of the board of education of New York City, was recently honored by the teachers at a luncheon at the Hotel Commodore.

—Walter J. Twiname who resigned recently, as business director of the Indianapolis school board, has become field examiner for the Indiana state board of accounts.

—The board of education of San Antonio, Texas, objects to the practice of pupils coming to school in automobiles. The presence of automobiles on school grounds, it is asserted, has a demoralizing effect. Pupils take spins around



Granite—The Noblest of Building Stone

Granite Where The Wear Is Hardest

Throughout the Lowell High School at Lowell, Mass., granite is used where the wear is hardest; steps, windowsills, base course, etc.

To those of you about to build, this is an idea worth considering. Our booklet tells why. Send for a copy.

National Building Granite Quarries Association
H. H. Sherman, Secy. 31 State St., Boston, Mass.

GRANITE

have teachers' salaries reduced 25 per cent next year.

—Hoquiam, Wash. The school board estimates that it costs \$73.77 to educate each child in attendance in the public schools of the city. The cost per student in the Polson School was \$142.98, while at the Washington School the cost was only \$53.98. The difference in cost was attributed to the number of children in attendance, the first school having eight pupils and the second 318 pupils. The total expenses for the year amounted to \$171,257.

—In May the school board of Charleston, W. Va., submitted to a vote of the people, a bond issue amounting to \$1,350,000. The issue is to be used for the erection of a senior high school, a junior high school, and several grade building units.

—Mt. Union, Pa. The community has approved a bond issue of \$200,000 for the erection of an elementary school, to contain a gymnasium, an auditorium, health clinics, shops and rooms for industrial arts. Credit for the enterprise and interest in the school children of the community is due to Supt. C. C. Smith, who by means of home and school organizations and a systematic educational campaign, has sold a high type of education to his community.

—The schools of Worcester, Mass., rank 35th in a list of 39 cities in the cost of supervision per pupil. Worcester expends 77 cents per pupil as contrasted with Wheeling, W. Va., which tops the list at \$3.69. The information is contained in a study of the cost per pupil in 39 cities ranging in population from 50,000 to 250,000 made by Mr. C. A. Dawson of Grand Rapids, Mich. The lowest city in the cost of supervision was Scranton, Pa., with 65 cents per pupil.

—Elizabeth, N. J. School bonds in the amount of \$587,000 have been sold at the lowest rate of interest, 4 1/4 per cent, since 1917. Bonds of \$92,000 for an addition to the El Mora School, went to the Union County Trust Company for 4 1/4 per cent. Bonds for \$495,000 went to the National State Bank at the same rate of interest. The money will be used for the erection of a junior high school.

—The schools at Wellsville, Ohio, closed a month earlier than in previous years, namely

on April 30th, owing to shortage of funds.

—The Indianapolis, Ind. board of education has worked out a building program and has invited the cooperation of the Chamber of Commerce, Board of Trade, Real Estate Board, Federation of Community Civic Clubs to co-operate in securing public sentiment behind the same.

—At Anacortes, Washington, the school authorities will call into council a large committee of citizens to discuss with them schoolhouse needs, on the assumption of plans proposed do not appeal to the committee, they will not appeal to the general voters. On the other hand the authorities feel that what the committee will approve will meet with public approval.

—The New Orleans, La., board of education has employed E. A. Christy as supervising architect at a salary of \$6,000. Mr. Christy was formerly the city architect of New Orleans receiving a salary of \$3,600.

—Frankfort, N. Y. Plans have been prepared for a high school to cost about \$200,000. The proposition of a high school bond issue will be voted on by the school district. The plans call for a building to house a junior high school, as well as a structure for the use of the senior high school.

—Stoneham, Mass. At an annual town meeting, the town voted bonds in the amount of \$150,000 for the erection of a junior high school. The plans call for a building with an assembly room, a gymnasium, a lunchroom, and library, together with a central heating plant.

—McGill, Nev. The board of education of the McGill District has voted to erect a junior high school to cost \$40,000. The board has this balance in its treasury which will be used for the new structure. The school district is owned by the Nevada Consolidated Copper Company and maintains a liberal educational policy.

—Iliion, N. Y. The school district recently defeated a bond issue for new buildings and additions.

—O. E. McKnight, president of the Delaware state teachers' association, claims that the shortage of the state school fund of Delaware is due to uncollected taxes exceeding the sum of \$100,000. A statement made by State Super-

intendent H. V. Holloway on the finances of the state bear out the charge.

—At Mandan, N. D., a four room grade school costing \$30,000 is being completed. It is semi-fireproof construction. A large community room is provided in the basement equipped with a kitchen. Bonds for a senior high school have been authorized and construction will begin this year.

—The high school enrollment has grown so rapidly at Keene, N. H., that an addition to the senior high is contemplated. The new Roosevelt school opened last September is one of the most modern in the state. It is quite probable that an open air school will be opened next autumn to accommodate fifty pupils. The budget for next year has been increased to \$165,000.

—A new elementary school to be known as school No. 6 in process of construction at Hackensack, N. J., will be ready for occupancy next September. It will have eighteen classrooms and provide for 1,000 students.

—Centerville, Iowa voted a seven mill school tax for a period of two years to finish the auditorium of the new high school building by a good majority. This is deemed most gratifying under the present economic conditions. Centerville already has a school levy of 116.8 mills.

—The board of education of Kingston, N. C., is planning to expend \$300,000 in erecting a new school and repairing the old schools.

—The grand jury of Pulaski county, Arkansas has studied the school finances of Little Rock and North Little Rock and urged retrenchment. The floating debt of the district is \$100,000. The schools cost \$650,427 for the year 1921-22 or a per capita cost of \$50 on actual attendance.

—Now that the board of education of New York City has engaged architect William H. Gompert to carry out an \$80,000,000 schoolhouse building program it is found that builders will not enter into contracts owing to the red tape connected with the same.

—Cleveland, Ohio has in hand a \$29,000,000 schoolhouse program.

—The Kansas City, Mo., board of education sold \$1,000,000 worth of school bonds bearing

(Continued on Page 107)

A Message to School Authorities



Subject:

Increased Traffic Dangers and Protection of Pupils

Two and a half million more automobiles on our streets by the close of 1923. An equal if not greater increase is promised for next year.

The minimizing of traffic hazards in the vicinity of schools is therefore a matter that demands the attention of all who are responsible for the safety of children. Increased traffic means greater hazards on all streets. Open school grounds where children, in the excitement of play, can dash from the grounds into dangerous streets, constitute a problem which school authorities must solve in the very near future. The moral responsibility of school authorities is not lessened because children who are injured in traffic accidents violated a school rule.

The thing to do is act now — fence your school grounds with Cyclone Fence and keep children within safe bounds.

Cyclone Fence and Cyclone Service will relieve you of all details connected with fencing school grounds; will assist in the selection of the correct fence and will assume complete responsibility for its installation. Cyclone Fence is strong, durable, built especially to withstand hard usage on school grounds. With Cyclone Service, Cyclone Fence insures 100% fence satisfaction. Write nearest office, Dept. 31, today for complete information and catalog.

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FACTORIES AND OFFICES:

Waukegan, Ill., Cleveland, Ohio,
Newark, N. J., Fort Worth, Texas,
Oakland, Cal. (Standard Fence Co.)
Portland, Ore. (Northwest Fence and Wire Works)



"The Red Tag"

The Mark of Quality

Cyclone Fence

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*Have YOU solved
this vital problem
of dining room management?*



CLEAN TABLEWARE at HALF the average COST

—how school and college cafeterias save 50 per cent in payroll and 60 per cent in breakage.

BY REDUCING THE NUMBER OF TIMES TABLEWARE IS HANDLED IN WASHING IT, managers of School and College cafeterias cut payrolls 50 per cent and reduce breakage 60 per cent with Autosan dishwashing equipment.

These Autosan methods force the machine to perform many functions that formerly were left to the operator. Lost motion is reduced to a minimum. The dishwasher merely places the china, silver and glassware on the moving conveyor, which carries them through keen water-sprays—first washing, then rinsing, then sterilizing with boiling water and live steam. The operator finally removes the tableware so hot it quickly dries.

Eliminating needless handling thus often permits one man to do the work that formerly required three. At the same time, breakage is automatically reduced. A further saving is made by the patented cushioned conveyor of the Autosan, which absorbs the jars and shocks that crack and break china and glassware.

Repeated demonstrations in hundreds of establishments using Autosan equipment have shown immediate economies totaling hundreds or thousands of dollars annually, depending on the size of the establishment. Write for folder **SB-66** illustrating how much can be saved in your own dish pantry.

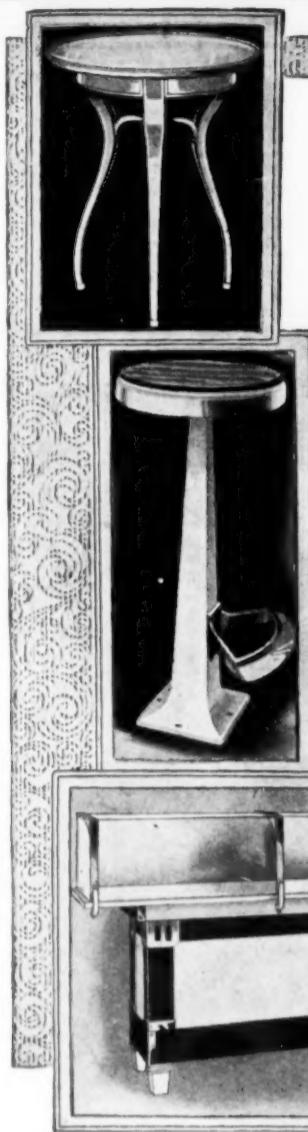
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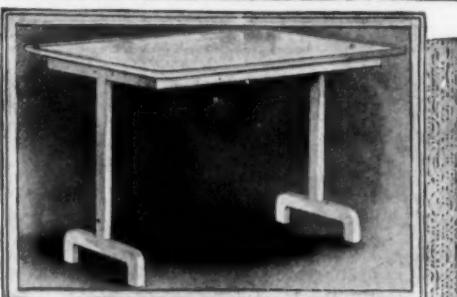
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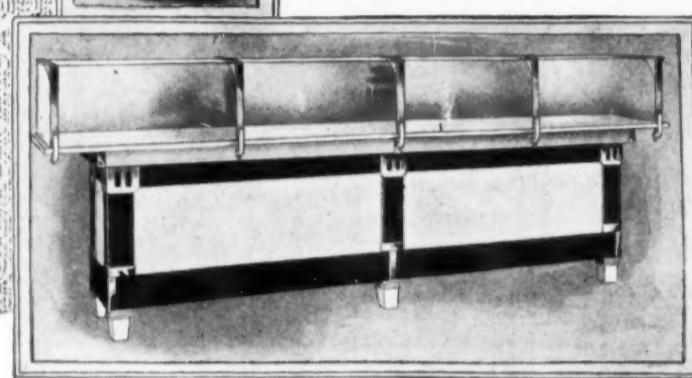


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(Continued from Page 104)

four and one quarter percent interest receiving a premium of \$28,000.

—Hope, Ark. Last summer the old wooden high school building was razed and a new ward school erected on the site at a cost of \$20,000. The junior and senior high school students were transferred to the Garland School, a large and partly used building.

—At Knoxville, Tenn., the county board of education is in trouble owing to the fact that it exceeded the debt limit by several thousand dollars. The local court has recommended that the school patrons take steps to remove the present board and elect in its place a board that would have some regard for law and their oath of office.

—The schools of Philadelphia recently observed "Wanamaker Day" prompted by a committee which is raising a fund for a suitable memorial in honor of the late John Wanamaker who was for many years a member of the board of education.

—The Winnipeg, Manitoba school board instituted a survey to ascertain the number of boys and girls between the ages of fourteen and eighteen not attending school. The figures show that out of about 5,000 boys and girls twenty seven percent are not employed, nor attending school.

—The British Columbia school trustees association passed a resolution favoring a law whereby any school board that wilfully attempts to induce a teacher to vacate the service of another school board shall be subject to a penalty in the form of a reduction of \$500 for every offense, which otherwise would be received out of the provincial treasury.

—The school board at New Bedford, Mass. dropped a teacher for the good of the service. Immediately the mayor of the city characterized the action as "unbecoming conduct." Superintendent Allen P. Keith defended the board by stating that he recommended the dismissal which is based on the testimony of twelve teachers.

—President R. P. Roedell of the Dubuque, Iowa board of education closed his address dedicating the new senior high school with the following paragraph:

"We hold in our hands the results of ages gone, and are holding them forth commingled

with our own efforts for the ages to come; growing, working, thinking, doing, seeking the heights and remembering they are yet unattained."

—The proposed charter to be submitted by the majority report of the Charter Revision Committee would make New York City a state school district, and would give the state complete power over the city's school system.

Under the charter the board of education would prepare the annual educational budget, which should provide for the necessary expense of maintaining the city schools upon at least the same level of service as that then currently existing but additional and emergency appropriations would be left to the discretion of the city authorities. The funds appropriated for existing service are to be subject to the unrestricted control of the board of education.

President Ryan, of the New York school board has expressed his disapproval of the proposed charter for the reason that the state has all the say and the city is left to do the paying. He believes the adoption of such a charter would mean the application of a principle directly opposed to home rule, and opposed to the wishes directly expressed by the voters. It would mean that the city would pay without having any representation.

—V. E. Anderson of Wheaton, Minn., was reelected president of the Minnesota School Board Association by a unanimous vote.

—A promoting company went into Seattle, Wash., to conduct a thrift campaign in the schools and, as later developed, in the interest two local banks. This created embarrassment for the school board which was obliged to repudiate the company.

—The school boards of Iowa spend \$56,000,000 annually. In commenting upon this fact the Tribune of Emmetsburg, Iowa says: "The people have a right to know for what and where this money goes. They have a right to know the proceedings of school boards. Obviously, people cannot all attend school board meetings, nor can they take the time to personally examine the books of the officers who disburse the money. There is only one way in which people can have the information they are entitled to in this important matter of spending half the tax money of the state, and that is

by reading it in their local newspapers, at their leisure, and thus have the facts filed away should they ever need them."

—In stimulating an interest in a pending school election the Oklahoman of Oklahoma City recently said:

"Members of the school board serve without pay. Honest, intelligent devotion to a term on the school board is one of the greatest of public services that good men can give the communities in which they live. One member of the board, a candidate for reelection, is so patriotic that he has served the public twelve years."

—Owing to charges of irregularities, George J. Ryan, president of the board of education of New York City has begun a thorough investigation on methods and procedure of examining teachers.

—The city council has made a cut in the school board appropriations. Superintendent Charles V. Carroll has stated that the cut is so drastic that it will mean the closing of the schools before the end of the school term.

—E. H. Miles of Fort Atkinson, Wis., was chosen president of the Wisconsin association of school boards. O. E. Gray of Platteville was chosen vice-president.

—Richard O. Johnson was chosen by the Indianapolis, Ind., school board to succeed Walter J. Twiname as business director.

—At Hackensack, N. J., Jacob W. Binder and Dr. Michael Sarla have been reelected to the board of education. The new members are Mrs. Theodore Dunn and William P. Banning.

—The teachers of Akron, O., are protesting against a method employed by the board of education in hiring and firing teachers. They contend that the teachers to be dropped should be given thirty days notice before the close of the school year in order that they may seek employment elsewhere.

—The Board of education of Mount Vernon, N. Y. has asked the Institute of Public Service of New York City, to make a survey of its school system and answer the following questions:

Are the public schools of Mount Vernon being conducted now in an economical and efficient manner: (1) From the business point of view? (2) From the educational point of view?

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Is the amount of money now expended by Mount Vernon on its schools proportionate to its financial resources? Is the amount of money expended by Mount Vernon on its schools disproportionate to the amount expended on other municipal requirements? Are there reasons why the schools of Mount Vernon should cost more than the schools of the general run of cities of the same relative population in the country at large, and if so, what are they?

—A resolution, introduced by President M. G. Owen, whereby the eighth grade is eliminated from the city schools and the junior high school is defended, was passed by the Springfield, Ohio board of education.

—At Lynn, Mass., a supervisor of primary schools threatened to resign unless her salary was increased and a new superintendent was elected, decreeing also that the latter must be chosen by a certain date. The board resented the ultimatum.

—Charles F. Hurley was obliged to contest his election to the vice chairmanship of the Cambridge, Mass., school board. He carried his case to the supreme court and won. Now the school board is in doubt about paying \$1,030 for legal expenses. Legal advise will be sought.

—Superintendent Allen P. Keith of New Bedford, Mass., defends executive school board sessions. He holds that ninety percent of the school boards of Massachusetts hold closed sessions and argues that "there are a great many matters, the very nature of which is such that public discussion of them will do more harm than good. Very few of the cities of the state are compelled by law to hold their school committee sessions in private. The rule is in force here through a special act passed back in the days of the larger school committee. I can see no reason, even under this law, why the committee may not go into executive session for the discussion of matters whose nature is such that public discussion would be harmful, provided, of course, that no business is transacted. The law only stipulates that all business of the committee must be transacted in public."

—Philadelphia, Pa. Until the janitors' salaries are revised, it will be the policy of the board to estimate the salaries in accordance with the present adopted schedule in buildings

containing more than 1,000,000 cubic feet of floor space. The fifteen per cent increase will be allowed in this estimate, as also an increase of \$430 and a further increase of \$402 will be allowed toward the grand total. The grand total is to be divided in such a manner as to give the janitor a personal salary of \$2,750, the balance to be applied to maintenance.

—Cape May, N. J. The school board at the suggestion of Supt. L. A. Rodes, has organized a council of athletics, consisting of two members of the board, two members of the faculty, two of the alumni association, five students and the superintendent of schools.

The duties of the council will be to provide athletic equipment for teams, approve scheduled games, determine the eligibility of the players from a scholastic standpoint, and raise and dispense money for athletic purposes.

The council which went into operation last September has proved an efficient agency. The teams which have been always more or less of a problem, are now no trouble whatever. They are in charge of adults of good judgment and command the respect of the pupil or player who is inclined to be unfair, irregular in play, or ungentlemanly in conduct.

—The Indianapolis, Ind. school board which has been under fire of public criticism for some months, has issued invitations to civic and commercial bodies to attend its meetings.

—The attempt made in the legislature of Illinois to reduce the membership of the Chicago board of education is being opposed. "We have had a reduction in the school board membership" said Alderman John Toman, "and the result was the 'solid six.' I have always felt that the larger the representation, the squarer would be the deal the people would obtain."

—Frank O. Dunning and Mrs. Agnes Banks are the new members of the North Plainfield, N. J. board of education. John M. Lewin was re-elected. The new board was called together by Dr. H. C. Krebs, Somerset County Superintendent, whereupon Horace M. Fisher was re-elected president, Brunson McCutcheon vice-president and Frank Rowley, district clerk.

—Complete lists of textbooks to be used in Indiana high school during the next five years

have been selected by the state board of education. More than forty books, involving an estimated expenditure of \$1,000,000, were chosen. The old textbook contracts expire with the close of the present school term.

—The city of Portsmouth, N. H., will celebrate its three hundredth anniversary on August 19th. Many memories of the past will be revived during the week but the visitor will be impressed with the fact as he sees public buildings, schools, streets, places of business and people that Portsmouth is not depending on her glorious past for her present prosperity.

—Three important positions in the New York City department of education, each made vacant by retirement, have recently been filled. Mr. Robert J. Frost has been elected district superintendent to succeed Dr. James Lee; Frederick B. Chambers has been elected auditor to succeed Henry R. M. Cook, and Joseph Miller, Jr., has been elected secretary to succeed A. Emerson Palmer. The retiring officials, in each case, had reached the statutory age limit of seventy years. The new officials were sworn in on February 5th, in the presence of President George J. Ryan of the board of education, and Superintendent of Plant Operation R. W. Rodman.

NEWS OF SCHOOL OFFICIALS.

—Mr. Richard O. Johnson has been made business director of the school board at Indianapolis, Ind. Mr. Johnson succeeds Walter J. Twiname.

—Mrs. Geo. C. Boesch has been made a member of the school board at Burlington, Ia. Mrs. Boesch is the first woman to fill such a position.

—Mrs. F. G. Murray has been elected president of the board at Cedar Rapids, Ia. Mrs. Murray was elected to the board two years ago.

—Mrs. Edith Tims has been elected president of the school board at Tama, Ia.

—Mr. C. B. J. Snyder, until recently architect of the New York City board of education, has been awarded a medal of honor by the New York Chapter of the American Institute of Architects. Mr. Snyder was superintendent of school buildings for 31 years.

—Mr. Paul H. Evans has been reelected president of the school board at Owatonna, Minn. Other officers reelected were John H. Dinsmore, secretary, and R. H. G. Metz, treasurer.

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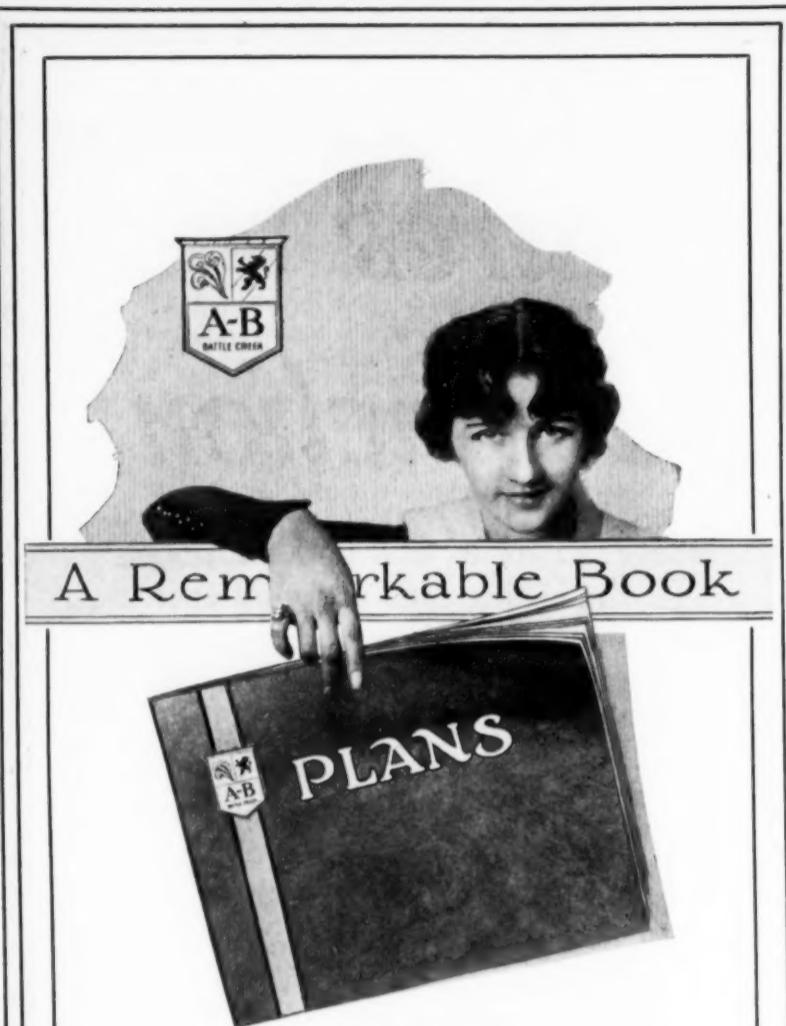
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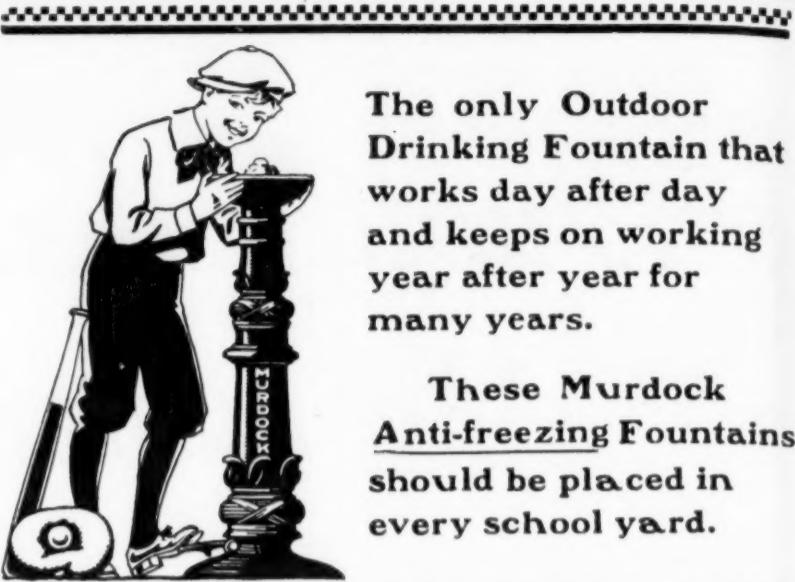
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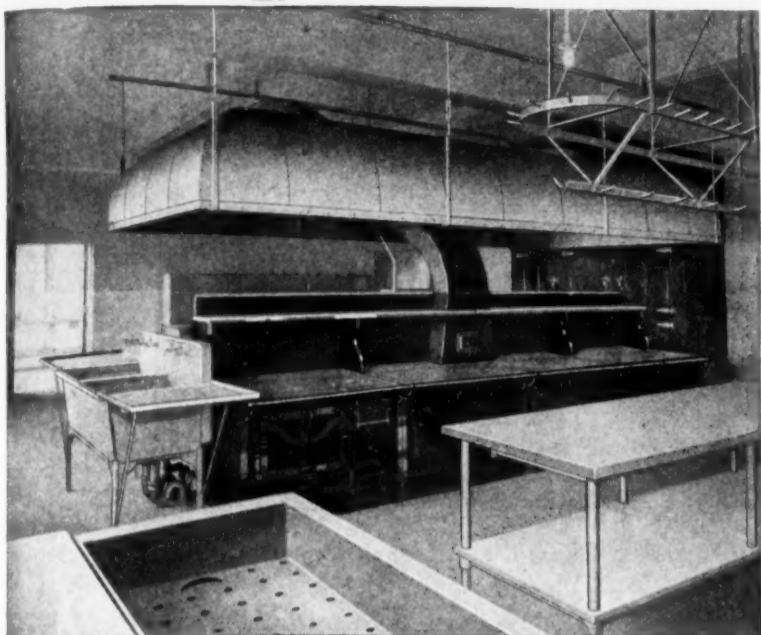
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Schools and School Districts.

A school district is merely a political subdivision of the state created for the convenient dispatch of public business, and, in the absence of constitutional limitations, the legislature may create or abolish a district or change or rearrange the boundaries of an existing district, and may create joint districts from territory lying in adjacent counties.—*State v. Meyers*, 210 P. 1064, Mont.

The Wyoming complete statutes of 1920, § 2233, authorizing a newly formed district to draw funds from the district from which it was separated until receiving its apportionment of school moneys, contemplates a just distribution between the old and new districts of funds possessed by the old at the time of division, but the old district need not pay expenses of the new until the county treasurer allots the latter's funds.—*School Dist. No. 3, Platte County v. School Dist. No. 2, Platte County*, 210 P. 562, Wyo.

School District Government.

A school district board has no authority and cannot bind the district by expressed agreement or otherwise to pay a proportionate share of the costs incurred by a township in defending suits brought to recover illegal taxes paid under protest.—*Coe Tp., Isabella County v. School Dist. No. 3, Coe Tp., Isabella County*, 190 N. W. 854, Mich.

The New York Education Law has cast upon boards of education, as separate corporate bodies representing the state, the responsibility of furnishing an efficient system of education, in the exercise of which they must act on independent judgment.—*Reif v. Schwab*, 197 N. Y. S. 127, N. Y. Sup.

Where a city board of education with the approval of the common council fixed the salary of the superintendent of schools at \$10,000 a year, there being sufficient funds to pay a warrant for services based on that salary, the com-

missioner of finance had no right to refuse to countersign the warrant on the theory that the common council had reduced his salary, since the New York laws of 1919, c. 645, gives the board of education exclusive authority to fix his salary, and the common council's right to determine the total amount to be spent for educational purposes does not carry with it the right to reduce the same.—*Fuhrmann v. Graves*, 196 N. Y. S. 776, N. Y. S.

School District Property.

A deed of land to a school district, reciting that the conveyance was for so long as the land shall be used for a public school, created an estate in fee, which determines when the grantee ceases to use the land for a designated purpose, and in the absence from the deed of words creating a limitation over to a third person, reverts to the grantor.—*Malone v. Kitchen*, 137 N. E. 562, Ind. App.

Under the Iowa acts of the 39th general assembly, c. 175, § 23, making it the duty of each consolidated school district to provide a suitable central building, the board of directors was authorized without calling an election, to construct a "temporary" structure for the accommodation of overflow of attendance; the cost thereof being less than \$2,000.—*James v. Consolidated Independent Dist. of Stanley*, 191 N. W. 60, Ia.

The board of education of the city of Fargo, a body corporate by virtue of a special law, approved March 4, 1885, as amended, authorizing such board to provide such apparatus as is necessary for the physical improvement and health of the pupils, in providing heavy swings and chutes on a school playground acted in a purely governmental capacity, and was not subject to a suit, either in an action for damages or otherwise for the death of a pupil injured and killed when struck by an iron-barred swing seat in operation on the school grounds.—*Anderson v. Board of Education of the City of Fargo*, 190 N. W. 807, N. D.

School District Taxation.

The New York Education Law, § 877, subd. 10, as added by the New York laws of 1917, c. 786, § 1, prohibiting a board of education from incurring liability in excess of the amount appropriated, means that this board must confine its salary expenditures within the limit of the appropriation for educational purposes, but

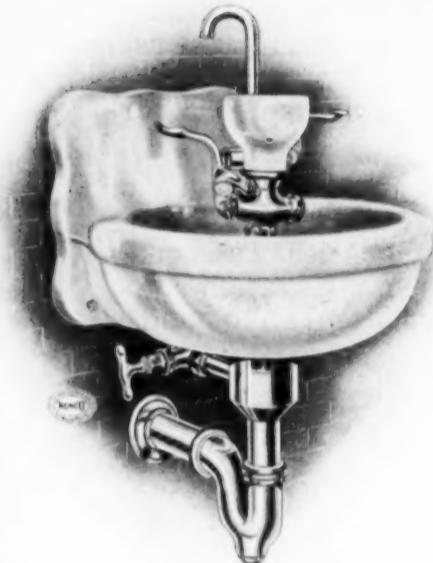
does not limit the expenditure to specific items of the budget as estimated.—*Fuhrmann v. Graves*, 196 N. Y. S. 776, N. Y. Sup.

Under the Kansas laws of 1917, c. 284, when a petition of legal electors is presented to the board of county commissioners, requesting an election to establish a rural high school district and to issue bonds therefor, it is essential that the publication notice of the election shall define the territory, so that the electors may be duly apprised of their interest in such election, and where the notice contains a discrepancy affecting four hundred acres, it is so materially defective, as to vitiate the bond election held pursuant thereto.—*Schur v. Rural High School Dist. No. 1, of Ottawa County*, 210 P. 1105, Kans.

At an election on the proposition to establish a rural high school district and to issue bonds for a schoolhouse and site, a ballot, so arranged as to give the electors an opportunity to express their wishes on these two main propositions, was held legally sufficient; it being unnecessary to subdivide the second into separate propositions as to the issue of bonds, the purchase of a site, and the location of the schoolhouse.—*Schur v. Rural High School Dist. No 1 of Ottawa County*, 210 P. 1105, Kans.

In giving the notice calling an election to be held in a consolidated district to determine whether bonds should be issued to erect and equip a schoolhouse and teacher's home, the election commissioners attempted to include in the notice a description of the land embraced in the district but erroneously described a part of the land as being in the adjoining range. It is held that the error did not render the election invalid, where the notice contained sufficient descriptive calls, including physical boundaries, to properly identify and locate the land comprising the district.—*Welborn v. Board of Supervisors of Jones County*, 94 So. 224, Miss.

Since the Oregon laws of 1915, c. 163, requires propositions for the issuance of bonds to be submitted at the annual election, and provides for a division of the districts into precincts, in which the several schoolhouses shall be used as polling places so far as possible, whereby the electors were charged with notice of the polling places for the annual election, the published notice for the submission of the



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question of issuance of bonds at a regular annual election need not designate the polling places.—Miller v. School Dist. No. 1, Multnomah County, 211 P. 174, Ore.

Where a community school district was conducting and maintaining a high school in the district and had levied a tax in support thereof, the court would not be warranted in holding up the collection of the tax levied to pay the expenses of the operation of the school until the determination of quo warranto proceedings to test the legality of the organization of the district.—People v. Zearing, 137 N. E. 481, Ill.

It is no justiciable concern of private litigants that there may be an infirmity in the organization of a rural high school district, of which the state alone may complain, but when such infirmity likewise affects a proposed issue of bonds, which was authorized simultaneously with the proceedings to organize the district, an action involving the same facts may be maintained by private litigants to enjoin such illegal bond issue and consequent assessments and tax levies, under the Kansas civil code § 265 (Kansas general statutes of 1915, § 7163).—Schur v. Rural High School Dist. No. 1 of Ottawa County, 210 P. 1105, Kans.

Teachers.

One employed to teach school is not obliged, at the option of the school board, to become a truant officer, with materially different duties as is shown by Crawford & Mosers' Digest, §§ 9051, 9052, and it is not a good defense in an action by a teacher for damages for wrongful discharge that she was offered and rejected a position as truant officer at the same salary, since one so discharged is not obligated to engage in a different type of employment in order to mitigate damages for wrongful discharge.—Russellville Special School Dist. No. 14 v. Tinsley, 245 S. W. 831, Ark.

The salaries of the supervising and teaching staff being largely fixed by statute, and a considerable portion of the total expenditure therefore being provided by the state, they must necessarily be controlled by the board of education free from interference by the municipal authorities.—Reif v. Schwab, 197 N. Y. S. 127, N. Y. Sup.

Under the New York education law, § 875, subd. 8, requiring contracts to be let to the lowest bidder, the specifications must be in such

form as to furnish a standard for real competitive bidding on a uniform and intelligent basis.—Warnock v. Wray, 194 N. Y. S. 396, N. Y. Sup.

LAW AND LEGISLATION.

—At Youngstown, Ohio the common pleas court has decided that the city cannot exact a license fee from school cafeterias upon the theory that the board of education is a quasi-corporation which cannot be taxed by the municipality.

—When the city council of Buffalo, N. Y., reduced the salary of Superintendent E. C. Hartwell fixed by the board of education at \$10,000 to \$7,000 the question was carried into the courts. Judge McLaughlin decided against the city council holding that "the board of education is given very broad powers in administration of the public education system of the city and those powers are exclusive and in no way controlled by the city council, except as to the total amount that shall be expended for educational purposes. The board not only fixes the salaries of superintendent and teachers (where they are not otherwise fixed by law,) but it also fixes the amount to be paid other employees."

—The supreme court of New Jersey has decided that the position of business manager of the Newark board of education comes under the civil service act, and hence is competitive and subject to examination. The board will appeal.

—J. D. Smith, principal of the high school at College Park, Georgia, has been made the defendant in damage suits involving \$75,000 for boxing the ears of a thirteen year old boy. Principal Smith has been teaching school for over forty years and has a successful record behind him.

North Carolina's New School Code.

The new school code adopted by the legislature of North Carolina provides, according to Dr. E. C. Brooks, state superintendent, the following:

County school boards and superintendents are elected for a period of two years.

County boards of education are authorized to borrow money against school budgets.

County boards will be prohibited from consolidating school districts except to consolidate them into a county unit.

The local tax rate is extended to a maximum of 50 cents on \$1,000 valuation. Any school district may vote bonds not in excess of five per cent of the valuation of the property.

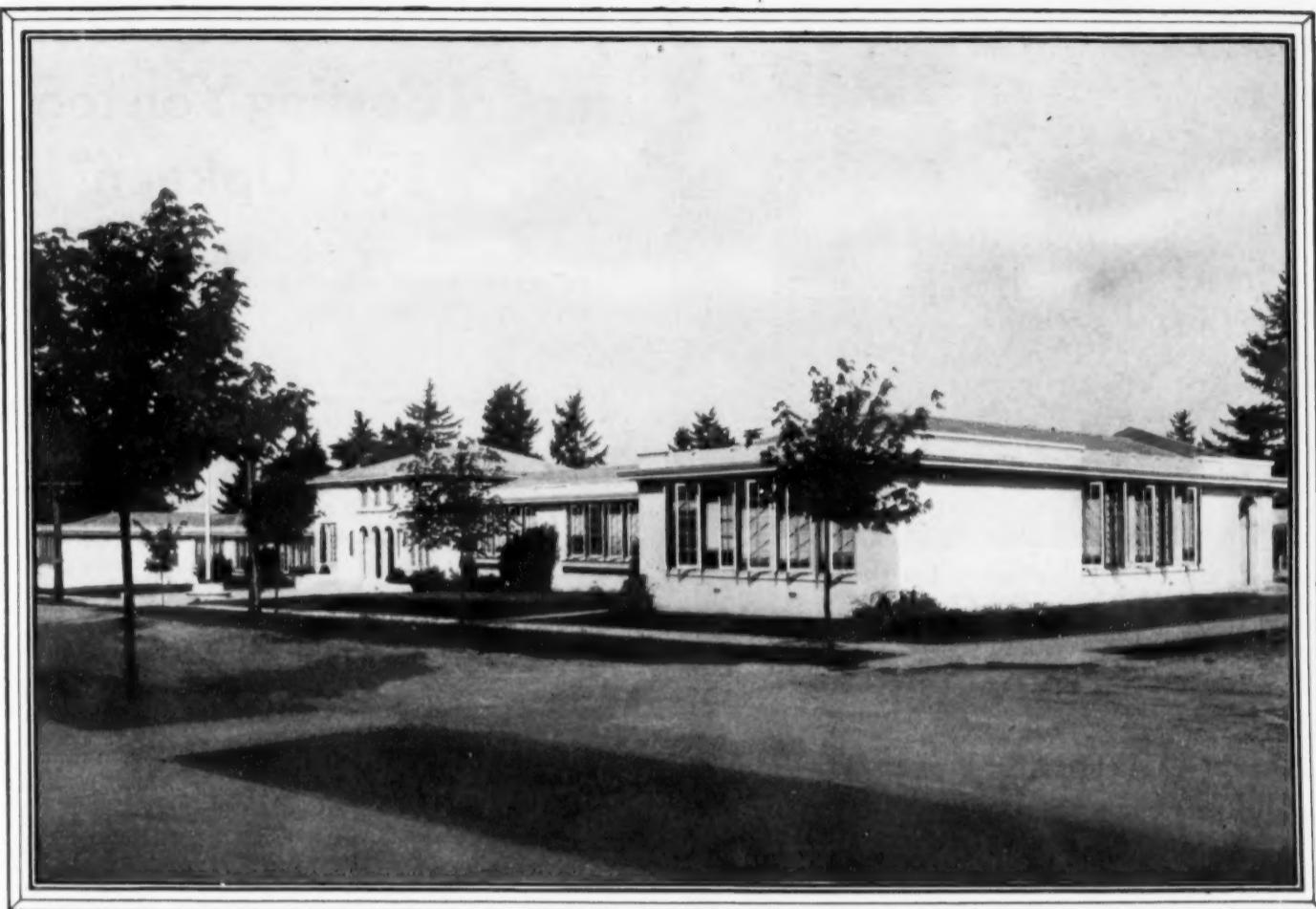
A special building fund of \$5,000,000 has been created from which loans to local boards may be made.

AN EXPERIMENT AT MANDAN, N. DAK. Superintendent C. L. Love has been trying a novel experiment in the first six grades of the central school at Mandan, N. Dak. The rooms are badly over-crowded, the enrollment ranging from 45 to 56 pupils.

Two teachers have been provided for each room, and the B and the A classes in each room have been equally divided into two divisions. The first division, under one teacher, comes at 8:00 a. m. and leaves at 10:00 a. m. The class comes again at 1:00 p. m. and leaves at 3:10 p. m. The second division, under the other teacher, comes at 9:50, leaves at 12:00, comes again at 2:50 p. m. and leaves at 5:00 p. m.

It will be observed that for twenty minutes in both the forenoon and in the afternoon the entire grade is present. This gives an opportunity for music, gym, writing, art, etc., both teachers being present. Also it tends to hold the grade together as a unit. Both teachers use the same outline, and the same work is presented in the afternoon as in the forenoon. Pupils may be shifted from one division to the other for any reason at any time. Sometimes a pupil who is not doing well under one teacher makes better progress in the other division. The pupils generally have made splendid progress and the system seems to be working to the satisfaction of all.

During the short winter days the children of the lower grades all came at 9:00 a. m. and were dismissed for the day at 4:00 p. m. Here both teachers were in the room all the time. One section reciting to one teacher while the other division studied under the supervision of the other teacher. This plan also worked well and there was no difficulty in keeping the pupils up to grade. Children are very adaptable and after the first day there was no confusion and one might think they had been used to it for years. This plan is used only in the first six grades as the seventh and eighth grades are organized as a grammar department under a principal and several departmental teachers.



KENNEDY ELEMENTARY SCHOOL, PORTLAND, OREGON. ARCHITECT, F. A. NARIMORE. PLUMBING CONTRACTOR, EUGENE RUEDY. HEATING CONTRACTOR, J. F. SHEA.

FIXTURES IN JUNIOR SIZES FOR LITTLE TOTS

Attractive school buildings stimulate interest in school attendance. Cleanliness, rigorously maintained in every department, helps to build foundations for strong character. To encourage and insure thorough maintenance of sanitation, Crane fixtures are made with smooth, non-porous surfaces, easy to keep clean.

Designed to prevent clogging of waste pipes, Crane sanitation appointments are built to give long service. Crane lavatories and toilets in junior sizes for kindergartens or elementary schools, match the high standards of quality demanded of all regular Crane fixtures and Crane valves and fittings for piping systems.

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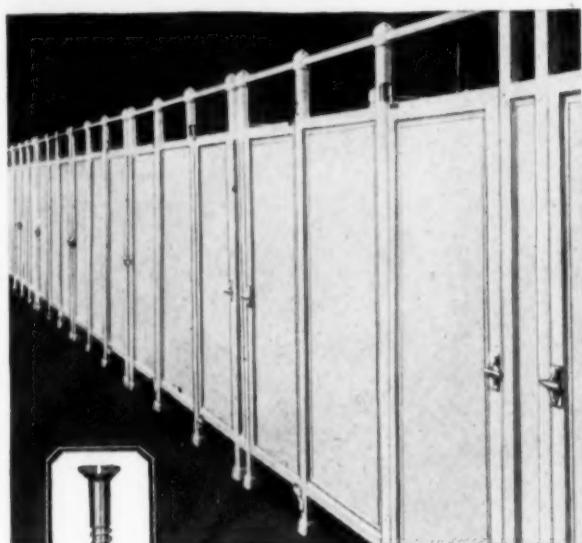
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Even the screws
are rust-protected

Sanymetal in the Johnstown, Pa., Schools. J. E. Adams, Architect.

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No. 5 of a Series on
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AT every point, Sanymetal Toilet and Shower Partitions discourage that insidious destroyer, rust. The special electro-zinc plating process is an example. This is applied to all hardware, every base casting, nut, bolt, and screw. Thus, down to the last detail, the long life of Sanymetal is doubly insured. In every requirement—strength, sanitation, appearance, durability, cost—Sanymetal is the most practical partition for school installation.

Built of Armco Ingot Iron, virtually immune to rust. Finished in heavy baked enamel, moisture-proof. Base-shoes and molds water-shedding. New design doors, with molded stile and rail, swing on patented Sanymetal Gravity Hinges. Sanymetal is also made for urinals, dressing rooms, screens, and toilet wainscot.

Write for Bulletin No. 6 on school partitions.

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It lasts longer and stays white longer than ordinary paints. Especially recommended in Gloss Finish for halls, recreation rooms and toilets.

Light-reflecting and easily cleaned of dirt and hand or ink spots by washing with soap and water.

SONOTINT reflects light without glare because of its velvety finish and so is especially adapted for classroom walls and ceilings. Easily cleaned of all dirt.

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Manufactured and Installed by

IT has all the features which experience has shown are necessary in a flooring for schools. It is comfortable under foot; quiet, smooth and never slippery. It is seamless, hygienic and is easily cleaned—and it is durable.

"The Floor That Keeps Its Promise"



"THE MASTIC" Floor

Proves its quality by its service and after years of use it continues to look like new. That's why architects repeatedly specify it for schools. It is an economy both in its initial cost and maintenance.

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RESEARCH BUREAUS IN CITY SCHOOL SYSTEMS.

"The first step toward success in any commercial or industrial concern is for the managers and owners to have accurate and ample information regarding every phase of the enterprise, whether it be a village grocery store or a metropolitan department store, an interurban subway or a trans-continental system," says Dr. W. S. Deffenbaugh of the bureau of education in the introductory on a pamphlet dealing with research bureaus in city schools. He continues: "So complex have city school systems become, especially those of medium and large sized cities, that superintendents of schools can not themselves collect and compile the data needed for their own and the school boards' guidance. As a consequence, many boards of education in the large, and some boards in the small, cities have organized departments or bureaus of educational research to collect and compile data regarding practically every phase of their respective school systems.

"Most of the city-school research bureaus have been organized within the past three or four years. Ten years ago there was none, or at least none in the modern sense of the term. To-day 45 city school systems report that they have research departments, and there are no doubt others that have not reported. Every progressive school superintendent, even if he has no regularly organized research department, is attacking his problem in a scientific manner by having the supervisors, principals, and teachers prepare data for his guidance. He is in some way securing the necessary information. But no doubt the most economical way is through an organized research bureau.

The cost is not brought out in every instance, owing to the fact that some bureaus are given part-time services by those employed on the general supervisory staff. The cost for the year 1921-22 of several cities is enumerated as follows: Chicago \$45,000; Boston \$11,370; Cleveland \$16,406; Denver \$20,000; Grand Rapids \$5,000; Kansas City, Mo., \$24,000; Trenton, N. J. \$7,800.

The following is a complete list of the cities reporting that they have research bureaus in connection with their school systems: Aberdeen, S. Dak.; Akron, Ohio; Ardmore, Okla.; Atlanta, Ga.; Baltimore, Md.; Beaumont, Tex.; Boston, Mass.; Chicago, Ill.; Cincinnati, Ohio; Cleveland, Ohio; Denver, Colo.; Duluth, Minn.; Dubuque, Iowa; Des Moines, Iowa; Emporia, Kans.; Grand Rapids, Mich.; Hibbing, Minn.; Highland Park, Mich.; Indianapolis, Ind.; Jackson, Mich.; Kansas City, Mo.; Lewiston, Idaho; Long Beach, Calif.; Los Angeles, Calif.; Louisville, Ky.; Martins Ferry, Ohio; Minneapolis, Minn.; New York, N. Y.; Newark, N. J.; New Orleans, La.; Oakland, Calif.; Omaha, Nebr.; Pasadena, Calif.; Philadelphia, Pa.; Pittsburgh, Pa.; Rochester, N. Y.; Santa Ana, Calif.; Schenectady, N. Y.; St. Paul, Minn.; Topeka, Kans.; Trenton, N. J.; Seattle, Wash.; West Allis, Wis.; Youngstown, Ohio.

SCHOOL ADMINISTRATION.

—"Do public schools exist primarily for the training of experts on the development of plan, good citizens?" is the question proposed by Superintendent Mortenson of Chicago. "Mental growth is not all of education. Athens gained her freedom through intellectual power. Socrates gained his through moral power. To know what were good to be done is of less value than the power and will to do."

—At Lewistown, Pa., a number of high school students in order to effect a postponement of examinations for which they were not prepared one night burned a number of sulphur candles in the school building in order to make impossible the use of the same on the following day. The result was considerable damage to the building.

—Public, private and denominational schools of Nebraska will be required to offer instruction in American history five hours each week

in the first eight grades, under the terms of a bill introduced in the state legislature. Above the eighth grade and up to the twelfth, a course of five and one-half hours per week is required in American history and the principles of national, state and local government. The main purpose of the legislation is said to be preparation for American citizenship.

—An eight months' school in all the nine thousand school districts of Missouri and higher pay for teachers are provided in the Maxey bill which has been approved by the legislative house committee on education. The bill is intended to carry out the real purpose of state aid—to help the poorer districts before state money is apportioned to the richer districts. It is estimated there are 1,655 districts in the state with less than eight months' school terms.

—Anderson, Ind. The school board contemplates the reorganization of the schools on the six-three-three plan. The plan requires another building for the graded schools to make room for a junior high school.

—The office of the state superintendent of schools of Missouri is actively supporting an extensive legislative program for better education within the state. Among the new measures are the following:

An 18-year minimum age for teachers.

Requirements for county superintendents to save sixty hours college work.

Fixing minimum salaries of county superintendents at \$1,500 and the maximum at \$2,500, with a penalty of \$25 for each school not visited.

Making county superintendents take office July first.

Increasing state aid for consolidation from one-fourth of the cost of building up to \$2,000 to forty per cent of the cost of the building up to \$5,000.

State aid for schools with vote 65 cents on the \$100 to enable them to reach standard and superior ratings.

—Barre, Mass. In response to a petition signed by twenty Italians, an evening school for adult immigrants was established last October. The enrollment and percentage of attendance was high and splendid interest was maintained throughout the course. Considerable credit is

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This volume is maintained by a constant and mild circulation.

The pupil in the corner seat receives the same benefit of stimulating ventilation as the pupil in the middle of the room.

This perfect diffusion of warm air in winter, cool air in summer and fresh air the whole year 'round, makes the American System ideal for your school.

One of our engineers is prepared to survey your needs without cost or obligation. He will show you how you can best heat and ventilate your school with the greatest saving in fuel, labor and initial expenditure. Wire or write the branch office nearest you.

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due the principal for his ability as administrator and organizer.

—A parents' day was successfully conducted at the Winchester High school, Winchester, Mass., on January 30th. About 500 visitors attended the sessions at the school, while the lunch counter reported that 800 were served during the sessions.

The school sessions were held from 3:30 in the afternoon to 9:00 in the evening. This appealed to the students and gave everyone an opportunity to visit the school. Various committees of the local parent-teachers' association acted as ushers to the visitors. Teachers and students alike were gratified with the interest taken in the work, and an effort was made to show how thoroughly and efficiently the recitations could be conducted.

As was expected, the largest attendance was during the early evening hours. Nevertheless, more than 250 visited the school during the afternoon. The official program closed at nine o'clock. This was followed with an informal reception which lasted until ten in the evening.

—The school system of Yazoo City, Miss., has a number of special features which are worthy of mention. The schools maintain an extended daily program, running from 8:20 in the morning to 3:35 in the afternoon. There is a physical education period for every pupil, while intervals of rest or recreation are allowed each morning and afternoon. Organized athletics are maintained in both the junior and senior high schools, with major and minor league teams in regular competition.

The school system conducts its libraries on the college plan, with reading rooms, freedom of movement and communication (under restraint), all under student control.

In the grammar grades, classes are divided for purposes of instruction into three or four groups based on intelligence, as determined by tests. Tasks are in each case suited to the abilities of the pupils. Socialized recitations are utilized by the teachers. In high school, the class circle is used to good advantage. The whole class including the teacher, is grouped in a circle, and the discussion takes on the form of a round table. The operation of the plan has

revealed some advantages of value to the school.

—South Bend, Ind. Plans have been made for completing the reorganization of the schools on the six-three-three plan. Some remarkable work has been successfully carried out in the junior high schools.

—The work-study-play plan has been proposed for adoption in the new Emerson School at Dayton, O. The system is to be tried out in a number of elementary schools where there is congestion and where building facilities are adaptable. The plan was suggested by Supt. P. C. Stetson who attended a conference on the subject at the recent convention of the Department of Superintendence in Cleveland.

—A group of three experts has begun a survey of the school plant at Dunkirk, N. Y. The committee will study the facilities of the present buildings and the sites for the proposed buildings.

—The Texas senate has passed a bill providing for the inauguration of the county unit plan for schools in counties of 100,000 population or over.

Under the county unit system, schools of the county will be placed under the jurisdiction of a county school board. District school trustees will continue to function but under the general supervision of the county board.

—Middlesboro, Ky. At the beginning of the second semester, special rooms were provided for over-age children. A permanent census plan has been adopted. Semi-annual promotions have been introduced and a thorough study of age-grade distributions has been made. Music has been introduced in the grades and the high school under the direction of a trained supervisor.

—Augusta, Kans. The system of supervised play in operation during the past two years has been a marked success. A schedule of games and exercises has been prepared for use at each building each month. All elementary and junior high school teachers are required to be on the playgrounds at recess time. Under the plan playground difficulties have been practically eliminated and the teachers have in the end become strong supporters of the work.

—Superintendent E. C. Hartwell of Buffalo, N. Y., has issued a special report on the activities of the high schools of that city. The report is tersely presented as to important facts and figures and well illustrated. The total attendance of the five high schools is 10,386.

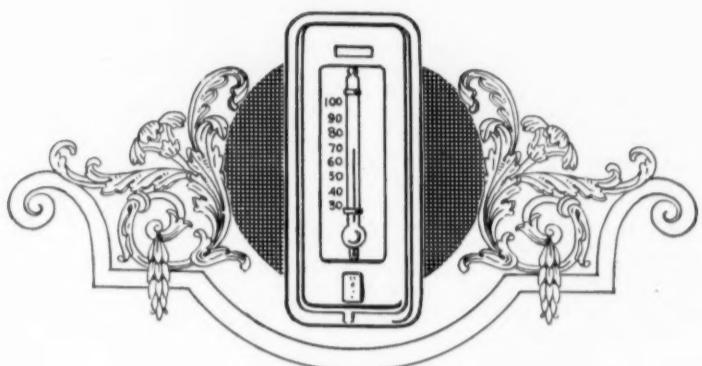
—“Motor cars, silk stockings and fraternities are troubling the schools of today” said Senator David M. Proctor recently. “If mothers wouldn't gad about so much at matinees and card parties the schools wouldn't have to carry unnecessary burdens. The home is shifting disciplinary care to the schools.”

—State superintendent Francis G. Blair of Illinois recently expressed himself as being opposed to national interference with state school affairs. Thereupon the Decatur, Illinois Review remarked: “When we accept national aid we must make up our minds to take the other things along with it. With an appropriation from Washington come the services of a lot of office-holders who are in existence as officials because of the fund from which the aid is furnished—in fact they are the main-spring and origin of the fund. Something must be found for these people to do.”

—Instead of having one central junior high school the school committee of Keene, N. H., has decided to have three such schools located in different sections of the city. In line with this policy the Franklin junior high was organized with eighty pupils. The Symonds junior high takes care of the seventh and eighth grades at West Keene.

—Out of 160 high school pupils enrolled at South River, N. J., only two dropped out during the year. Superintendent William S. Lesh also reports that the graduating class of last year showed that 60 percent entered college and 20 percent entered normal school.

—The chief problem at Hackensack, N. J., is the assimilation of 75 new members on the teaching staff occasioned by a denial of an expected salary increase in an effort to check the growing cost of the schools. In meeting the situation the most effective device employed has been the appointment of the strongest teacher as grade leader with responsibility of assisting new teachers and directing of conferences.



WHEN figures, gathered by unbiased hands from various sources, under various conditions, all over the United States, show that The Johnson Pneumatic System Of Temperature Regulation produces fuel savings of from 15 to 50 per cent—it is great cause and high time right now for all schools to be equipped with The Johnson System. Fuel economy in schools is essential; and such extent of definite fuel economy is, indeed, a noticeably worth while annual item. No school building today should be erected without including Johnson temperature control. No present school building should continue without it. Decrease of fuel consumption is the school's only way to overcome the increase of fuel costs. Install The Johnson.

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TEACHERS AND ADMINISTRATION

AN ETHICS CODE FOR PRINCIPALS.

The New York Principals' Association recently began the consideration of a code of ethics presented by a committee headed by Dr. Nathan Peyer. There are twenty-five paragraphs in all, thirteen of which were adopted as follows:

1. No code or set of rules can be framed which will set forth all the professional obligations of the principal. The following canons of professional ethics are adopted by the Principals' Association of the City of New York as a general guide; the enumeration of particular obligations, however, should not be construed as a denial of the existence of others equally valid though not specifically mentioned.

2. All professions exist primarily for the purpose of realizing profit. Teaching and its supervision more than any other fields of endeavor find their greatest reward in promoting the welfare and securing the higher development of our democratic society.

3. The school is the only agency in society whose sole aim is to conserve and advance human and social values. Teaching is par excellence a profession, in every sense of the term. Those who assume the privilege of becoming members of this profession must gladly accept the moral obligations that are indissolubly associated with the problem of the educator and the social worker. They must at all times recognize and observe the ideals and standards which social needs have defined and which social and educational experience has evolved.

4. The obligation assumed upon entering the teaching profession requires that principals comport themselves in such manner as to conform to the highest recognized standards of social and moral conduct, and that they use every honorable means to uphold the dignity and honor of their vocation, to exalt its standards, and to extend its sphere of usefulness.

5. Intellectual initiative and freedom of thought are entirely consistent with educational, social, and national security; they are in fact essential to progress. Educators, as members of our democracy, should take their places in society as moulders and determiners of public opinion. As citizens they are endowed with the customary rights of citizens of participation in legally recognized political organizations and they may express themselves accordingly, provided they do so as private citizens and apart from their official relationships.

6. Principals should feel themselves free to voice their opinions concerning conditions, activities, and tendencies within the educational system. This will make for educational improvement and progress insomuch as it will bring to bear upon the educational problem the thought of thousands of intelligent men and women who are intimately acquainted with the needs and conditions of the schools.

It is highly desirable, however, that the proper channels for improvement and redress be utilized, and that strictures and suggestions be made first to official superiors and the Board of Education.

This shall not in any way limit the freedom of principals to discuss publicly the educational situation, however frankly, when gathered in regular organizations for personal and professional improvement.

7. Principals, as good citizens and because of their professional training, should interest themselves in all movements for public betterment, and take active part particularly in activities for child welfare. Through their relationship with parents, public officials, and other citizens of school localities, principals should assist in the promotion of activities for the betterment of child life and should co-operate with other agencies existing for this purpose.

8. Principals should reflect the scientific attitude of open-mindedness to experimentation and change.

They should also assume the scientific attitude of withholding judgment upon experiments until the results have definitely collated and scientifically interpreted. Conclusions reached, whether positive or negative, should then be fearlessly and truthfully set forth.

9. Principals owe loyalty and support in educational policies to their immediate superiors and to the superintendent of schools. This shall not contravene the effort of Provision 6 and 10 to this code.

10. Principals, individually and in organizations, should take a definite stand concerning school policy and administrative theory and should make their point of view and constructive suggestions known to the officials in charge.

11. Principals should strive in every way possible to enlighten the public and responsible public officials concerning the vital needs of the school system. They should lend their cooperation to all efforts made by the educational authorities for the securing of needed facilities and opportunities for the schools. They should not hesitate to petition the authorities for adequate salary adjustments throughout the system, whenever, in their judgment, the efficiency of the schools will be increased thereby.

12. The principals in association should consider what are necessary qualifications for all teaching and supervisory positions in the school service. They should study the functions of every position, from substitute teacher to the superintendent of schools, and on the basis of their intimate knowledge formulate suggested standards of qualification and scholastic and professional achievement.

13. Where vacancies occur in supervisory positions to be filled by appointment the Principals' Association should reissue such suggested standards.

TEACHERS AND ADMINISTRATION.

—The teachers of Portsmouth, N. H., believe in professional advancement. More than one-half of the teaching staff is completing an extension course for university credit. The course is conducted under the Harvard-Boston University Plan. In all, fifteen two-hour sessions have been held.

—Tama, Ia. The school board has adopted a policy not to reduce salaries for the next year. In the grades, the salary ranges from \$1,080 to \$1,125, and in the high school from \$1,260 to \$2,100.

—Duluth, Minn. Upon the recommendation of Supt. J. H. Bentley and the committee on schools, the board has discontinued the use of the rating system for teachers. The system was adopted in June, 1922 with the idea of providing a better means for grading teachers' salaries.

—At a meeting of the county board of education of Jay County, Ind., a resolution was adopted in which the members declared themselves as opposed to the practice of women teachers continuing in teaching after marriage.

—The school per capita of the Kentucky schools for the fiscal year, beginning July 1, 1923, will be raised from \$6.10 to \$8, according to State Supt. George Colvin. The increased per capita will add approximately \$10,000 to the county funds for paying teachers.

—A bill has been introduced in the South Carolina legislature providing for the employment of a teacher who is related to the members of the school board in the second degree. Such teacher may be employed where a majority of the parents and guardians in the district request the employment.

—The school board of Salem, Mass., has adopted a twelve month payment plan for teachers to go into effect next September. If teachers quit on September 1st they will be paid upon a ten months' salary basis.

—The town of Barre, Mass., has provided two teachers' homes for the housing of the high and elementary teachers of the community. The homes which are located near the school building are rented and maintained by the teachers, under the direction of the school authorities. The income from board and room is sufficient

(Continued on Page 121)



SERVICE AND SATISFACTION.
In May—School Supplies? No Hurry!



CONFUSION AND DELAY.
In August—School Supplies? Ship at Once!

We hear from an Architect



A LETTER came to us the other day from Mr. Erle G. Stillwell, a leading architect of Hendersonville, N. C., Mr. Stillwell says:

"I have, in common with many other architects, had great difficulty in getting fixtures properly installed on the job.

"Such service as you describe should go a long way in improving this condition."

Nothing is more annoying to an architect than neglect of the niceties of workmanship, which often mar seriously the effect of an otherwise thorough and careful job.

The service to which Mr. Stillwell refers is the assembling and fitting by Clow of all parts which go to make up an installation of fixtures. In the illustration above, for instance, a Clow specialist is

setting up a pedestal lavatory. Pedestal and bowl must match and fit perfectly; flanges must be filed to fit exactly over unevennesses of the porcelain; all operating parts must work smoothly and snugly; and there must be no flaw in brass or porcelain.

This work, performed in our factory before every shipment, saves the plumber a lot of time-consuming work for which he has not always the proper tools or materials.

Clow service is important to the architect as well as to the plumber and to the building owner.

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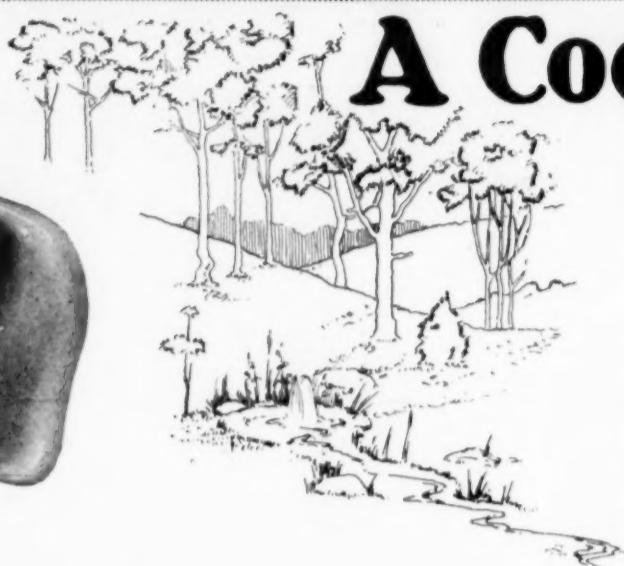
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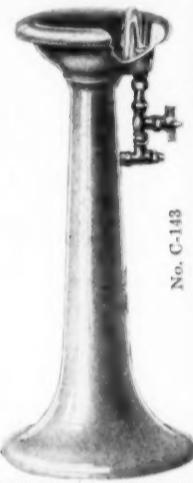


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No. C-143

Note the construction of the Rundle-Spence "Vertico-Slant" Drinking Fountain. It has no hood on which the corner of the mouth can rest — LIPS CANNOT TOUCH THE NOZZLE — no filth collecting crevices that are impossible to clean — but is neat in appearance and absolutely sanitary in every respect.

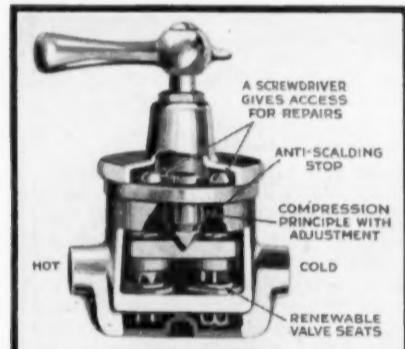
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Replacing Valve Seats

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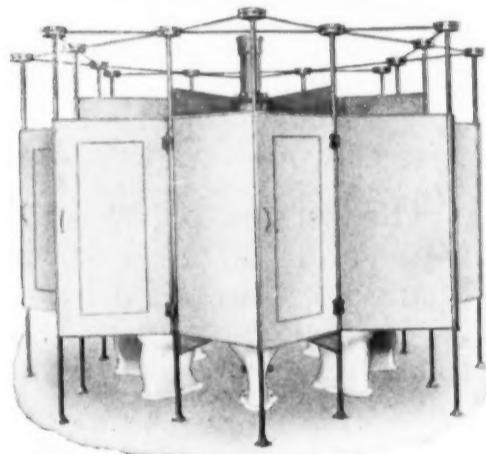
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Stands out free from Walls.
Does not intercept Light or Air.
Can be installed in Half the Space, in Half the Time,
and at Half the Cost of others.
The large Octopus One Piece Drainage Fitting, not
shown, is included with each Combination.
Hundreds in use.

Details on request.

THOS. KELLY AND BROS.

404 SOUTH KOLMAR AVE.
CHICAGO, ILLINOIS.



Orlando High School, Orlando, Fla.

Finds QUIET Heating Efficiency in a

Dunham Vacuum Heating System

Architect:

F. H. Trimble
Orlando

Heating Contractor:

Jacob Burkhard
Orlando

PRESTIGE to the heating system, satisfaction to the School Board, and comfort to the occupants of the building are three outstanding results of Dunham Heating Service in this modern school building.

The fundamental difference in the Dunham Vacuum Heating System from all other forms of steam heating is that the circulation is produced more by the action of the vacuum in the return piping, sucking the air out and inducing the steam to rush in and fill its place, than by force or pressure behind the steam pushing it on-

ward to push the air out and displace it. This relieves the burden upon the source of the steam supply—whatever that may be—of furnishing the force or energy to cause circulation. The engineer will readily appreciate the tremendous value of vacuum heating when utilizing exhaust steam. Where an engine exhausts against pressure

the work delivered by that engine is materially reduced. The less resistance to the exhaust the more work will the engine do with the same quantity of steam. Wherever exhaust steam is used for heating purposes the owner saves many dollars that otherwise would be an absolute loss. Frequently the waste through the exhaust head is more than enough to heat the entire building using the power supplied by the engine. The heating work in that case is pure gain to the owner if a vacuum heating system is used. In the Dunham Vacuum System the engine does not have to push the steam around to produce circulation, thus the exhaust steam may be used without decreasing the work done by the engine. In other forms of exhaust heating, where the circulation is produced by the pressure of the exhaust the engine loses some of its power, depending upon the amount of back pressure carried.

Type of System:

Vacuum

Approximately
5000 sq. ft.

Radiation

75 Dunham Traps

75 Dunham Valves



C. A. DUNHAM COMPANY

230 East Ohio Street, Chicago

(Continued from Page 118)

to meet all expenses, and both houses are self-supporting. The plan offers a comfortable home for the teaching staff and has proved very satisfactory in operation.

—The Teachers Annuity and Aid Association of Cincinnati, consisting of 462 members has assets mounting to \$123,602.44. President Edward D. Roberts of the association reports a bequest of \$10,000 from Fannie E. Crumpton. The total annuities and benefits thus far paid amount to over \$173,000.

The new teachers licensing law of Indiana goes into effect December 1, 1923. After this date all licenses for public school work will be issued and renewed only on the basis of credentials, showing the amount and kind of work actually completed in accredited institutions, and, where possible, on the basis of successful teaching experience and professional spirit. The authority is vested in the state board of education.

—Philadelphia, Pa. The board has amended its rules governing the salaries of teachers transferred to higher positions. The revised rule reads:

When a person occupying a position for at least two consecutive years is transferred to a higher position, and has received a greater salary than the initial salary of the position to which transferred, he shall retain the salary last received in the vacated position under the salary schedule.

—Lancaster, O. For the next three years new teachers with less than two years' teaching experience will not be employed in the schools. Cadets with evidence of successful teaching are excepted from the ruling.

Under the rules, two years of normal college training are accepted as equivalent to a year's teaching experience.

The rules do not apply to successful teachers employed in the schools at the present time.

A SURVEY ON TEACHERS' SALARIES.

A survey of salaries paid to teachers in cities ranging in population from 175,000 to 500,000 was made by Lou Staude, Comptroller of the Seattle, Washington school board. The statistics which the surveyor has compiled cover grade, junior and senior high schools in the several cities and deal with the minimum and

maximum, as well as the average salaries paid to teachers.

Grade Teachers Salaries.

City and State	Average Salary	Minumum	Maximum
Akron, Ohio	\$1,708.00	\$1,200	\$2,000
Atlanta, Ga.	1,296.00	1,056	1,536
Birmingham, Ala.	1,307.00	1,000	2,000
Cincinnati, Ohio	1,200	2,000	
Columbus, Ohio	1,430.68	1,000	1,800
Denver, Colo.	1,780.45	1,200	2,320
Los Angeles, Calif.	1,720.00	1,400	2,000
Louisville, Ky.	1,315.53	1,200	1,550
Milwaukee, Wis.	2,044.00	1,200	2,400
Minneapolis, Minn.	1,690.00	1,200	2,000
Oakland, Calif.	1,994.57	1,500	2,040
Omaha, Neb.	1,775.37	1,200	1,800
Portland, Ore.	1,562.00	1,200	1,800
Providence, R. I.	1,525.80	1,000	1,800
Rochester, N. Y.	1,653.00	1,200	2,000
St. Paul, Minn.	1,525.00	1,200	1,650
Seattle, Wash.	1,770.61	1,350	1,950
Spokane, Wash.	1,643.84	1,200	1,700
Tacoma, Wash.	1,704.87	1,200	1,860
Washington, D. C.	1,351.21	1,200	1,600

Senior High School Teachers.

City and State	Average Salary	Minumum	Maximum
Akron, Ohio	\$2,149.00	\$1,400	\$2,800
Atlanta, Ga.	1,872.00	1,572	2,142
Birmingham, Ala.	1,723.00	1,250	3,000
Cincinnati, Ohio	1,400	2,800	
Columbus, Ohio	2,254.65	1,250	2,375
Denver, Colo.	2,302.10	1,350	3,080
Los Angeles, Calif.	2,140.00	1,800	2,600
Louisville, Ky.	1,799.33	1,700	2,550
Milwaukee, Wis.	2,554.00	1,600	3,600
Minneapolis, Minn.	2,069.00	1,500	2,500
Oakland, Calif.	2,304.22	1,740	2,400
Omaha, Neb.	2,055.43	1,400	2,100
Portland, Ore.	1,685.00	1,600	2,600
Providence, R. I.	2,187.14	1,400	3,000
Rochester, N. Y.	2,195.00	1,600	2,400
St. Paul, Minn.	2,100.00	1,500	2,250
Seattle, Wash.	2,077.81	1,650	2,250
Spokane, Wash.	2,006.90	1,500	2,000
Tacoma, Wash.	2,002.73	1,500	2,220
Washington, D. C.	1,935.24	1,440	2,500

Junior High School Teachers.

City and State	Average Salary	Minumum	Maximum
Cincinnati, Ohio	\$1,400	\$1,200	\$2,800
Columbus, Ohio	\$1,972.65	1,250	2,375
Denver, Colo.	1,923.44	1,200	2,800
Minneapolis, Minn.	1,897.00	1,200	2,500
Oakland, Calif.	2,191.32	1,620	2,220
Omaha, Neb.	1,866.67	1,200	2,100
Rochester, N. Y.	2,139.00	1,600	2,400
Washington, D. C.	1,439.41	1,200	2,240

The following cities maintain no junior high schools: Akron, Atlanta, Birmingham, Los Angeles, Louisville, Portland, Providence, Milwaukee, St. Paul, Seattle, Spokane and Tacoma.

TEACHERS SALARIES.

—A resolution introduced at the Yakima County School Directors' Association, Washington to reduce teachers salaries not less than twenty-five percent was tabled until the annual meeting to be held later in the spring.

—The motion introduced in the school board at Victoria, B. C. reducing the teachers salaries by five percent and thus effecting an annual saving of \$22,000 was defeated.

—Muskegan, Mich. The board of education has renewed contracts with the teachers at the regular scheduled increase of \$50 in the grades, \$100 in the high school, \$200 to secondary principals and directors, together with a few double increments to persons off schedule. The total increases amounted to \$18,150.

—The Hawaiian territorial normal and training school in presenting its first budget to the 1923 legislature, has requested an increase in salaries all along the line. Additional amounts are desired for a model training school for observation purposes and a new plant for the rural training unit. The total of the budget for the biennium, January, 1924 to January, 1926 is \$373,860.

—Secaucus, N. J. The regular increase of \$100 was given to all grade teachers this year.

—Newport News, Va. The school board has adopted a salary schedule for white and colored teachers. All teachers under the schedule are classified annually according to ability and length of service. The classification must be made by the superintendent subject to the approval of the committee on instruction of the board. The schedule is as follows:



All Speakman Built-in Shower Valves Have RENEWABLE Seats

This is true not only of compression valves but of the Mixometer as well.

Speakman Compression Valves are furnished with metal escutcheons when desired. An all-metal Mixometer, exposed type, is also made for school use. This is part of the H-895 Institutional Shower.

School Boards interested in showers will find that we probably have data which they can profitably use. Also we will send folders on showers especially designed for institutional use.

SPEAKMAN COMPANY
Wilmington, Delaware

SPEAKMAN SHOWERS

Salary Scale (colored) Teachers			
	Mini.	Increase	Maxi.
Normal Diploma	1000	100X 6	1600
Bachelor's Degree	1200	100X10	2200
Master's Degree	1400	100X10	2400

Supervisors of special subjects—A differential of \$300.

Heads of departments—A differential of \$100.

Principals

Elementary Schools Less Than 16 Rooms.			
	Mini.	Increase	Maxi.
Normal Diploma	1600	100X 6	2200
Bachelor's Degree	1800	100X 6	2400
Master's Degree	2000	100X 6	2600

Elementary Schools 16 Room and Over and High Schools Under 600 Pupils			
	Mini.	Increase	Maxi.
Normal Diploma	2000	100X 6	2600
Bachelor's Degree	2200	100X 6	2800
Master's Degree	2400	100X 6	3000

High School Above 600 Pupils			
	Mini.	Increase	Maxi.
Bachelor's Degree	2800	200X 5	3800
Master's Degree	3000	200X 6	4200

The scale will apply only to teachers who have graduated from a two-year course of an accredited normal school or who hold a baccalaureate degree from an accredited college.

Foreign experience shall be credited by the

superintendent in his discretion according as in his judgment this experience is a contributing factor in equipping the teacher for more effective service.

The classification of teachers shall be held as

confidential, but teachers shall at all times have

access to their own records.

This salary scale is based upon the school

session of ten months, payments to be made in

twelve monthly installments.

Salary Scale (white) Teachers			
	Mini.	Increase	Maxi.
Normal Diploma	600	75X 7	1120
Bachelor's Degree	1000	75X 7	1520

Principals Less Than 16 Rooms			
	Mini.	Increase	Maxi.
Normal Diploma	1200	75X 8	1800
Bachelor's Degree	1400	75X 8	2000

Principals 16 Rooms and Over and High Schools			
	Mini.	Increase	Maxi.
Normal Diploma	1600	75X 8	2200
Bachelor's Degree	1800	75X 8	2400

THE BOONTON, N. J. SALARY SCHEDULE.

The board of education of Boonton, N. J., with the cooperation of Superintendent M. Earnest Townsend, adopted at the beginning of the year the following salary schedule:

Grade or Dept.

Sub-primary through 4th.....

Fifth and Sixth.....

Seventh and Eighth.....

Ninth to Twelfth (H. S.)—

Men

Women

Women (Com'l.—non-coll. gr.).....

H. S. Principal.....

Grade Principal (and Supv.).....

Grade Principal (Teaching).....

Manuel training (Man).....

Domestic Science (Woman).....

Drawing (Woman)

Music (Woman)

Special (Opportunity Class).....

Delinquent (Woman)

Physical Training (Man).....

Physical Training (Woman).....

7. New entrants with experience, to be given not more than four years of increment credit, according to experience.

8. An increment may be withheld from any teacher by the Board of Education, for purposes

Minimum Annual No. of Maximum

Salary Increment Increments

\$1200 \$ 50 8 \$1600

1250 60 8 1730

1300 75 8 1900

1800 100 6 2400

1500 100 8 2300

1350 75 8 1950

2000 100 8 2800

2000 100 8 2800

1300 75 8 1900

1800 75 6 2250

1500 75 6 2100

1500 50 8 1900

1500 75 8 2100

1350 50 8 1750

1500 50 8 1900

1800 100 6 2400

1500 75 8 2100

of professional discipline, if the opinion of the Supervisor and board is that such should be done.

9. If any teacher should at any time qualify for special advancement by any of the methods enumerated below, the board of education shall grant one extra yearly increment to said teacher, either as part of the salary or in the form of a bonus. The methods are as follows:

(a) Summer school work in grades or subjects taught, in a normal or university summer school, approved by the board and supervising principal.

(b) Similar work, yielding equal credit as above, in University Extension Courses, or Saturday courses, pursued during the term of employment.

(c) Any special work, or significantly outstanding accomplishment in the profession, which in the judgment of the board would warrant such consideration.

10. The status of any present teacher or new entrant shall not be legally affected by the terms of this schedule, so far as that status relates to the provisions of the state school law, art. VIII, paragraph 165.

REGULATIONS:

1. Minimum training for new entrants, sub-primary: normal school or kindergarten training school.

2. Minimum training for new entrants, grades 1-8: normal school or equivalent.

3. Minimum training for new entrants, grades 9-12: college or special professional school, four years beyond high school grade.

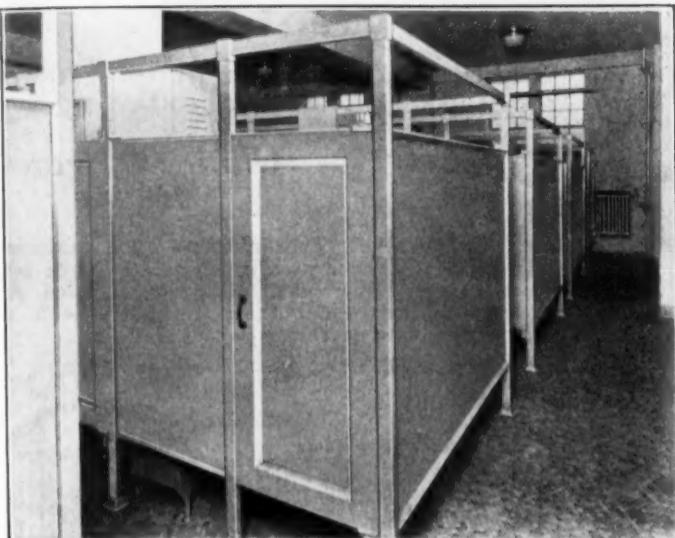
4. For all special teachers: training in the particular branch to be taught, for at least two years beyond high school grade.

5. No provisions as to new entrants to affect standing of those already in the system at the time of adoption of this schedule.

6. All teachers in system at time of adoption of schedule, to be classed as follows:

(a) Those meeting approval of board, and with one to three years of experience therein, to be given not more than three years increment credit.

(b) Those meeting approval of board, and with over three years of experience in system, to be given from three to five years increment credit, according to experience, training and efficiency.



Illustration—at left—is a partial view of "WEISTEEL" dressing room installation. Each dressing room is equipped with seats and lockers for two occupants.

Illustration — below — of "WEISTEEL" double acting doors forming a screen. Also note each toilet compartment has a narrow front partition to reduce width of door opening.



WEISTEEL

TRADE MARK
REGISTERED

COMPARTMENTS

TOILET, SHOWER, DRESSING ROOM

When you and your architect discuss toilet room equipment, you can approve "WEISTEEL" without reservation.

School Boards and leading architects have used "WEISTEEL" for twelve years with uniform satisfaction. The demand is national. There are probably installations near you. Write us for a list.

"WEISTEEL" is better than slate or marble, with a saving of 40 to 60%.

EVERY DETAIL IS A FEATURE

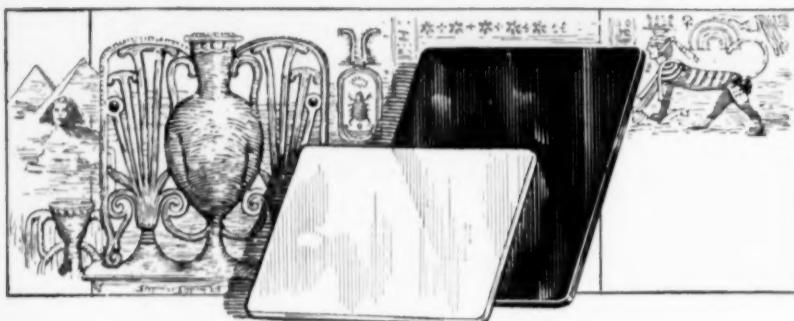
Sixteen gauge (1/16 inch), special smooth finish, Keystone Copper-bearing steel throughout (excepting door rails and stiles); brass foot castings on all posts; special "WEISTEEL" Universal Hinges; nickel plated hardware, including heavy slide bar brass latch. These are a few of the details which, coupled with standardized precision methods of manufacture, are causing progressive architects to specify "WEISTEEL" exclusively for all kinds of buildings.

New catalog No. 11 will be sent on responsible request

HENRY WEIS MANUFACTURING CO.
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ATCHISON, KANSAS

NEW YORK: 110 W. 34th Street.
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"AGE CANNOT MAR"

Not less but even more enduring than the exquisite and marvelously preserved alabaster vases which have just come to light after 3500 years in the tomb of King Tut-ankh-amen, are the beautifully wrought slabs of Vitrolite which architects are specifying every day as the ideal material for wainscoting and wall and ceiling surfacing in corridors, washrooms and similar installations in public schools everywhere.

Vitrolite is one of the most permanent structural materials known. Laboratory tests and the test of use indicate that it is practically proof against time, impervious to the elements and chemical reagents, organic and inorganic—and stainproof, sanitary, instantly cleaned.

Available in snow-white, jet black, etched black and polychrome patterns. More enduring than any other available material—lower in final cost. School boards and architects will be supplied with full specification data on request.

THE VITROLITE COMPANY
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Service Organizations in Principal Cities of America and Overseas



Efficient Heating

Demands Radiators so constructed that every square foot is prime heating surface.

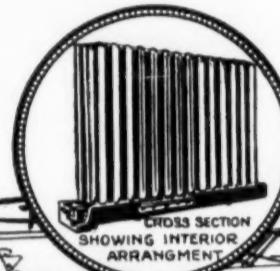
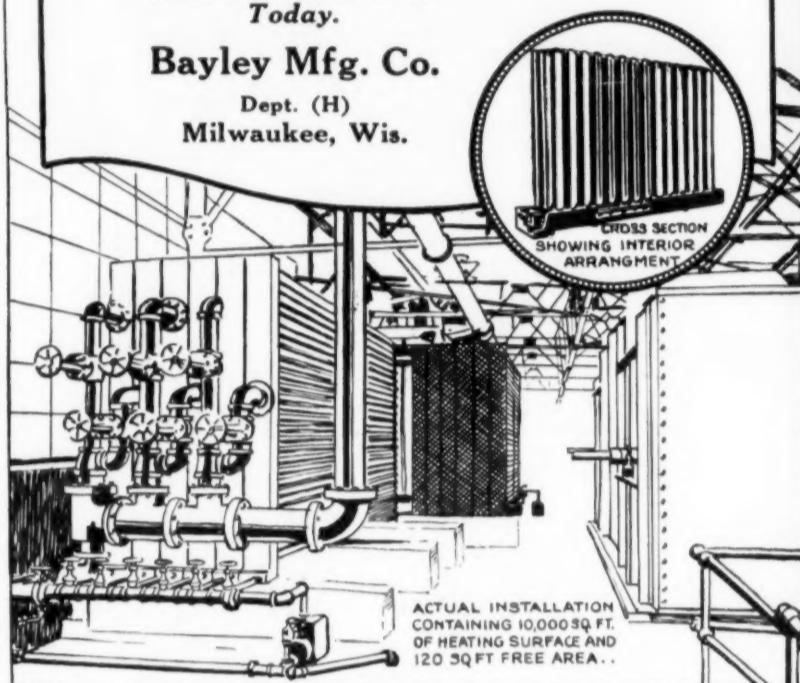
Bayley Chinook Heaters

are built on the "Tube-Within-a-Tube" principle, every tube a complete radiator in itself, free from water hammer, return bends, elbows and nipples. Any tube can be removed without interfering with any other tube. Can be shipped K. D.

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Dept. (H)
Milwaukee, Wis.



RADIATOR HANGER YOU'LL USE 'EM YET!

They hang your radiators on the walls, well above the floor, with ample room to get a mop or brush underneath.

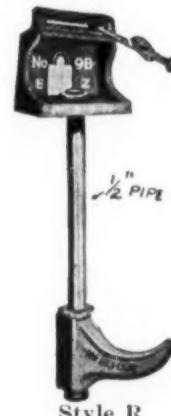
E-Z Hangers insure (1) floors more easily cleaned around the radiators; (2) A continuous saving of labor; (3) Greater sanitation.

Your New Building Needs Them

Adapted to ANY type of radiation, ANY type of wall construction. Hangers completely hidden when installed. Write for the facts and list of prominent installations.



Style H



Style R

Healy-Ruff Company

DEPT. 17

MINNEAPOLIS, MINN.

High Schools, Great and Small, need Duriron



EASTERN HIGH SCHOOL, SNOWDEN ASHFORD,
Washington, D. C. Architect

This immense high school is equipped with Duriron drain lines from its laboratories. But its need of Duriron is no greater than any school that contains a laboratory or science room.

Corrosives used in science courses immediately attack and ultimately destroy other pipe, while Duriron, wholly immune from acid action, will last indefinitely and function perfectly.

Instead of continual repairs, entailing interruption to class work, damage to walls and finish—a never ending handicap—Duriron drain pipe renders 100% service with 0% maintenance.

Our handbook, "DURIORON ACID-PROOF DRAIN PIPE," explains in detail.

The Duriron Company, Dayton Ohio

THE PATERSON NORMAL SCHOOL BILL.

For several years the educational authorities of Paterson, N. J., have been seeking state recognition and support for the Paterson Normal School. This teacher-training institution has been maintained at the expense of the city as part of the local school system for fifty years. During all that period the school has provided trained teachers for the schools of Paterson and in addition many of its graduates have served the schools of neighboring districts. In this way the Paterson normal school has made a valuable contribution to the educational interests of New Jersey. The certificates granted to the graduates of this institution were good only in the schools of Paterson and in order to teach in any other district it was necessary for the young ladies to take additional examinations under the direction of the state board of examiners.

As New Jersey maintains several state normal schools and provides trained teachers for other school districts, it was the opinion of the local board of education that Paterson might reasonably ask financial support from the State for the city normal school. At the same time it was claimed that the local school was conducted on the same high plane of efficiency as the state normal schools and there was continual demand for the local graduates. It seemed unjust, therefore, that additional examination should be required of Paterson normal graduates who were offered good positions in other school districts.

To correct these conditions legislation was secured in 1921 making it possible for the state board of education to take over the city normal school and conduct it as a state institution. The legislation of 1921, however, did not provide the necessary funds for the operation of the school by the state department. When the legislature convened in 1923, a new bill was introduced in the house of assembly by Assemblyman Henry A. Williams, which carried with it an appropriation sufficient to maintain the school for one year.

This bill has passed both houses of legislature and has been signed by the governor. In September, 1923, therefore, the Paterson normal school will become a state normal school. By this act the taxpayers of Paterson will be re-

lieved of the financial burden of maintaining the school, and its graduates will be eligible for appointment in any school district in New Jersey without further examination.

BETTER SCHOOLS AND BETTER TEACHING.

The South Central Division of the Illinois State Teachers' Association expressed the following in resolution form:

Both public opinion and the requirements of modern life and citizenship are demanding better schools and better teaching:

We strongly recommend to school boards that they demand training and professional ability.

We oppose any tendency toward the reduction of salaries which will jeopardize either the maintenance or continued growth of this professional ability.

Cities that have elected to maintain the so-called unit systems of school administration are seriously handicapped in comparison with cities that have adopted the so-called dual system; and therefore

We approve a higher permissible rate of taxation for school purposes for cities that have seen fit to maintain the so-called unit system of administration.

ETHICS OF SCHOOL APPOINTMENTS.

The Oklahoma Education Association has provided a code of ethics out of which we reproduce the part dealing with appointments and promotions, as follows:

A teacher should take no steps towards securing a position until it is definitely known that a vacancy exists.

When accepting a position a teacher should inform any other place where an application has been filed that his services are not available.

A teacher has a right to make known his qualifications to the proper school authorities by personal statements, personal letters (not open letters) from any person or agency qualified to recommend the teacher.

It shall be considered unethical to underbid another applicant. Appointments and promotions should be solely on the basis of merit. A teacher should not object to nor endeavor to prevent the increase in salary of another because his own is not raised.

A superintendent or school board shall not make secret proposals to a teacher relative to

a position without giving the proper officials then employing that teacher an opportunity to employ the teacher should they desire.

When a teacher is offered a better position he should be released to accept it within the time specified in the contract.

In all schools employing a superintendent applications for positions should be filed with the superintendent, thus recognizing him as the executive head of the schools.

A teacher desiring to succeed to a given position shall not permit his name to be used whereby the incumbent may be handicapped and a vacancy created.

Social, political and religious influences should not be aroused against an individual by a prospective candidate. No advancement or change of a position should be sought thru criticism of another teacher.

No teacher should recommend another for a position which is not known to be vacant.

A superintendent or other official who employs teachers should not knowingly employ teachers who have not been released from the position held, without the knowledge and consent of the employers of said teacher. There must be a contract written or verbal for the teacher desired.

No self-respecting teacher should obtain a position by courting personal favor or by other doubtful relations with members of a school board or others in authority.

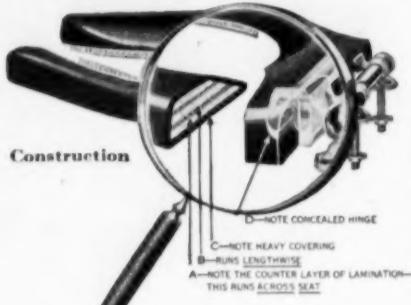
RULES AND REGULATIONS.

—Racine, Wis. Under a new rule of the school board, salesmen and solicitors will not be permitted to solicit business in any school building used for class purposes. Such salesmen must apply at the office of the school board where they will receive attention.

Another rule prohibits the selling of flower and garden seeds in the schools.

—Chicago, Ill. The board has adopted a rule transferring the bathroom attendants from the control of the Bureau of Engineering to the Educational Department. The rule provides that bathroom attendants and high school matrons shall be appointed on requisition of the superintendent of schools, subject to the provisions of the civil service laws, and shall be under the supervision of the principal of the school to which they are assigned. The change

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REG. PAT. OFFICE
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CLOSET SEATS



Construction

D—NOTE CONCEALED HINGE
C—NOTE HEAVY COVERING
B—RUNS LENGTHWISE
A—NOTE THE COUNTER LAYER OF LAMINATION—
THIS RUNS ACROSS SEAT

REPAIR-REFINISH
TOILET SEATS?



Investigate

Whale-Bone-It

which eliminates all
future cost
of maintenance

*It is impervious
acid-proof
sanitary
easiest cleaned
stands the gaff*

*Guaranteed against splitting or
cracking*

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in administrative control makes possible regular inspections and supervision of the work of these employees which had not been possible under the old plan.

A NEBRASKA SCHOOL BOARD CONVENTION.

The several school boards of the county met at Wahoo, Nebraska and were presided over by Superintendent E. A. Oldman.

Needed school legislation was discussed by B. E. Hendricks of the Wahoo school board. He urged greater economy in school expenditures. He was followed by Superintendent P. A. Adams of the Wahoo schools who spoke on "the Ideal Teacher." Mr. Adams was frank in stating that there was "no such animal," but believed that certain qualities should be fostered which would lead to greater efficiency.

"The Ideal School Board Member" was discussed by Superintendent W. G. Putney of Cedar Bluffs. Mr. Putney centered his argument upon the interest which school officials must exert in providing a properly equipped schoolhouse. He objected to obsolete textbooks and paraphernalia.

E. H. Henderson of Colon dealt with the subject of "Common Sense Accounting" as applied to school finances. He pointed out that the muddled conditions in which school boards frequently found themselves was not due to dishonesty but to indifference and carelessness in the performance of their duties.

"Waste in Education" was discussed by Inspector I. N. Clark of Lincoln, holding that frequently school boards employed more teachers than necessary. County Agent Roberts then spoke on the school as a community center.

"School Entertainments" received attention at the hands of Harry Parmenter. He believed that every school should have one entertainment a month, that the participation of children in such exercises strengthened their power of expression. He also held that every youth should possess the talent to express himself on his feet.

"The Qualifications of the Rural Teacher" was treated by Harry Hughes and "the Rural School Problems" were discussed by Prof. N.

W. Gaines of the state agricultural school. Mr. Gaines proved himself a whirlwind speaker.

The South Central Division of the Illinois State Teachers Association elected Otto Weeden of Decatur, president and O. P. Simpson of Taylorville, vice-president.

H. M. Buckley, superintendent of schools at University City, Mo., was elected president of the Association of School Administrators. C. A. Green of Boonville was elected vice-president and Miss Alberta of Kakosha, secretary.

AMONG PARENT-TEACHERS' ASSOCIATIONS.

The executive committee of the California state parent-teachers' association representing 60,000 members entered a strong protest against any reduction in the state school fund.

Keene, N. H., has seven live parent-teachers associations, all allied with the national body. The schools of Keene acknowledge their helpfulness. They have been the means of providing milk for the children and equipping many of the schools with pianos, phonographs and records. They have introduced a number of welfare measures and have stimulated the general interest in the progress of the schools.

At Centerville, Iowa the school board has provided a dental clinic at a cost of \$300 provided by the local parent-teachers association. Six dentists have volunteered their services for examination purposes each giving one half day a week to the clinic. Complete records will be kept.

DIVIDED SCHOOL CONTROL.

In Massachusetts, the question of City Council Control of the schools, as well as divided control whereby the school boards would be subject to city council dictation, has received considerable attention recently. The Springfield, Mass., Union makes the following comment:

"The efforts of the Massachusetts Legislature to grant to city councils full control over the different items entering into the school budget has met with deservedly strong opposition on the part of teachers, school superintendents, school committees and numerous business and civic organizations. Such departure would be most unjust to school boards, and would make

it difficult to command the services of committeemen of requisite caliber. In a short time, through a process of weakening the tenure of teachers, the weakening influence of a politically controlled organization would be felt throughout the teaching force.

"A statement by a committee of superintendents calls attention to the point that it is an established tradition that school committees chosen by the people shall be held responsible for the proper conduct of school activities. It declares that decisions of the Supreme Court have recognized that authority should fairly match responsibility, whereas the proposed legislation would destroy the school committees' authority.

"This point is well taken. To divide authority between two bodies, or to place political influences in paramount control, would be to combat and destroy the vital, organic principle by which educational policies are fostered and developed and become a great progressive force. To put superintendents, principals and teachers at the disposal of the dispensers of political patronage and to open questions of school appropriation items to the log-rolling means of settlement, making the interest of school children one of the pawns of the political chessboard, would be to take a painful and shameful backward step in a Commonwealth that so long has enjoyed the reputation of being progressive in educational matters. It is not conceivable that the Legislature will be moved to take that step.

PERSONAL NEWS OF SUPERINTENDENTS.

—Mr. M. B. Andrews of Durham, N. C., has been elected superintendent of schools at Fayetteville, to succeed W. S. Snipes.

—Supt. S. E. Green of Texarkana, Ark., has been reelected for another two-year term.

—Supt. S. R. Logan of Hardin, Mont., has been reelected for the next year.

—Supt. J. E. Johnson of Clark, S. D., has resigned, the resignation to take effect at the end of the school year.

—Miss Mary J. Wyland has been reelected as superintendent of schools at Harlan, Ia.

—Miss Agnes Heightshoe has been reelected as superintendent of schools at Perry, Ia.

THE NATIONAL SYSTEM

AUTOMATIC TEMPERATURE CONTROL

The simplest, most efficient temperature control for schools, backed by National reputation.

For twenty-two years this company has modestly progressed, making installations of its Systems in schools throughout the entire United States and Canada. The continued satisfactory operation of these installations has demonstrated the correctness of principals involved in the design of the National System. Its progress being due to the lasting service derived from mechanical installations, with a minimum of maintenance, resulting in general recommendations.

Investigation Invited

NATIONAL REGULATOR CO.

208 So. Jefferson St., CHICAGO, ILL.

Offices in principal cities



Hamilton Street School, Harrison, N. J.
Jos. W. Baker, Architect.

Conservation of fuel is the most important work of the American people. The problem of fuel saving is solved by the Board of Education of Harrison, N. J., by the use of the Peerless Unit System of Heating and Ventilating in the Hamilton Street School, Harrison, N. J.

Pure air and proper temperature conditions are prime essentials to student health and efficiency. The Peerless Unit System of Ventilating and Heating stands clearly alone as the means of meeting these requirements. The volume, temperature and condition of the pure, fresh air, cleansed of dust and healthfully humidified, positively supplied to each room, is made exactly right for that room independent of every other room and distributed thoroughly throughout the room without drafts.

Our Engineering force is at your service.

Peerless Unit Ventilation Co., Inc.
437-439 West 16th Street, New York, N. Y.



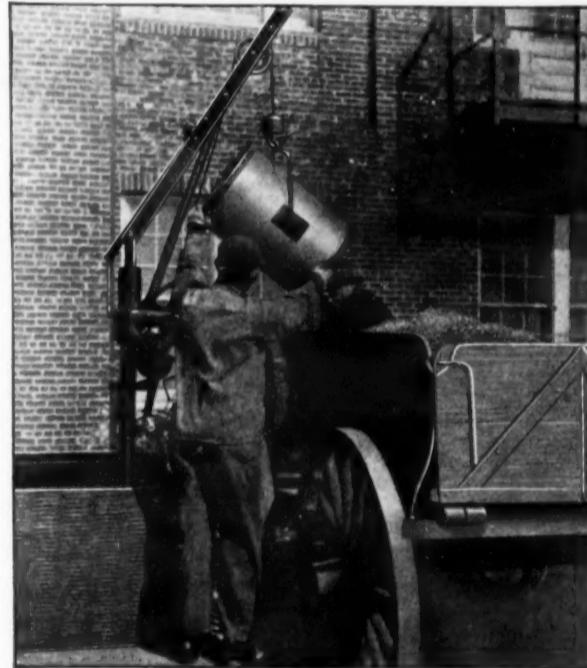
New public school at Spring Lake, N. J. Ernest A. Arend, Archt.

In New Jersey 63 Public Schools

Are equipped for ash removal with G&G Telescopic Hoists

THE Model B hand power Hoist illustrated, is very popular in smaller schools where ash accumulation is limited. The overhead crane is an extra labor saving feature as it does away with rehandling ashes on sidewalk. In larger schools where ash accumulation is much greater an electrically operated Hoist is most suitable. Our Engineering Department will help you select the proper model.

Schools in 39 different states now use G&G ash removal equipment. If you are interested in the complete story ask your architect. He has our catalogue on file. Or we will send you a catalogue direct upon request.



This is the Model B Hoist at the Spring Lake School. Note how sidewalk opening is protected by G&G Sidewalk Doors and Spring Guard Gates.

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The
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REG. U. S. PAT. OFF.
Telescopic Hoist
with Automatic Gear Shifting Brake
Device and Silencer



TAKE YOUR BUILDING OUT OF THE FIRE TRAP CLASS

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before another year of worry, lest you be called to account for a sacrifice of precious lives because you did not provide safe fire escapes.

The STANDARD SPIRAL SLIDE FIRE ESCAPE is the safest escape, because:

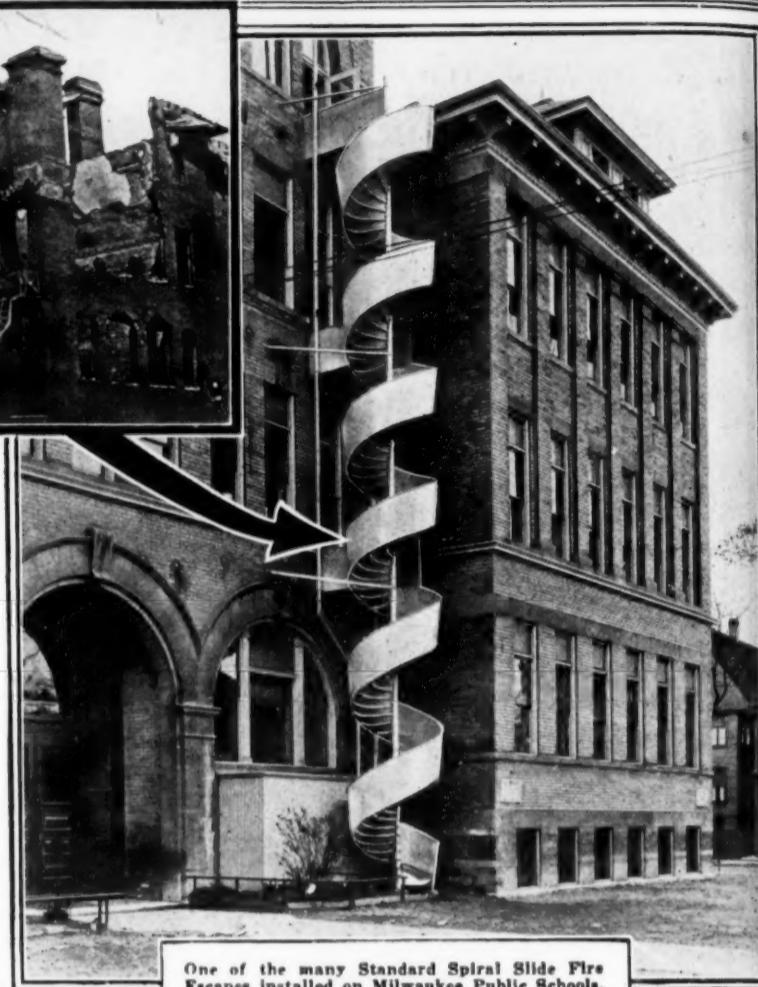
1. Its entrances at floor levels make it easily accessible.
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Know more about these safe fire escapes. Send for our spiral fire escape catalog—TODAY.

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Representatives in All Principal Cities.



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It's a pleasure to use these handy, easy-working, stay-where-put steel windows. No battles with sticking sash, no fasteners to work loose. Just push or pull—that's all. Shades roll from bottom, with cord-locking pulleys. Use one shade for upper-two-thirds of window if you prefer.

Cost is surprisingly low.

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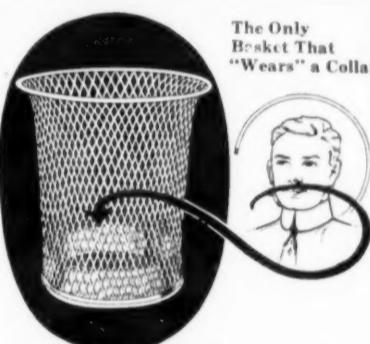
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usage it customarily receives and still retain its shape and neat appearance. The



Made of Expanded Metal—NOT Wire

because of its unusual strength and staunch construction has been approved by the school boards of more than ten of America's largest cities.

Nicely enameled to prevent rusting and with solid steel bottom and "collar" to prevent pencil shavings, etc., from sifting out, the NEMCO meets your every requirement. Yet, it is MOST MODERATE in price.

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The Ideal School Window



Classroom in Teachers College, Indianapolis, Ind.
Herbert Foltz, Architect. Brandt Bros. & Co., Contractors.

The Truscon Projected Steel Window has been installed in hundreds of schools to the complete satisfaction of the architects, engineers and school boards.

The Truscon organization, because of its tremendous size is able to make deliveries when they are promised. This is a big item when the school board requires the building for the Fall term.

A corps of Truscon engineers are located in the principal cities throughout the country and their service is yours for the asking at any time.

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STEEL WINDOWS

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—East Orange, N. J. The school board has entered into an agreement with the health department under which it is planned to use the Schick test for detecting diphtheria suspects. The tests will be administered on a voluntary basis and with the approval of the parents. Children who are susceptible will be immunized by weekly injections of toxin-antitoxin.

—Perth Amboy, N. J. Nutrition work has been begun in the public schools under the direction of the local Nutrition Council. The board has given permission to have the children weighed and measured during recess hours. The work is being carried out along the lines followed in New Brunswick, Newark and Woodbridge.

—Hudson, N. Y. The school board on February 28th, initiated a campaign of oral hygiene under the direction of a flying squadron of six to eight dental workers. The dental experts worked under the oral hygiene committee, cooperating with the state department of health. They were especially active along oral hygiene lines, giving particular attention to the care of the teeth and to the teaching of health habits in connection with the teeth. The plan of work was as follows:

The workers held free dental clinics in the schools where children were examined as to the condition of the teeth. Report cards were filled out and these were delivered to the parents so that they might know the results of the examinations. Lessons and talks were delivered to the children on general health topics and particularly the care of the teeth. The local Red Cross chapter offered to cooperate by employing an expert oral hygienist to give two weeks to work in the schools.

—Syracuse, N. Y. Funds of the Millbank Foundation are to be made available for health work in the schools under an agreement entered

into by the school board and the officers of the foundation. The foundation has offered to provide a nutritional supervisor to direct the work in the schools. The foundation has been asked to assist the health department of the school in securing additional dental hygienists and nurses and more pay for medical inspectors.

—The secretary of the school board, S. L. Bertalet of the East Vincent township, Pennsylvania, and his daughter, a teacher were fined by a justice of the peace for permitting unvaccinated children to attend school.

—Kent, O. Through funds provided by the community chest, pupils in the schools have been given thorough physical examinations. The dentists of the city donated their time for the oral examination of the children. A clinic is conducted each Thursday afternoon in the year in rooms set apart in the Roosevelt High School.

An unusual feature of the work is the fact that the directors of the community chest have voluntarily agreed to pay the cost of medical or dental treatment for children whose parents are unable or unwilling to furnish it.

—Framingham, Mass. Recognizing the virtue of the old adage that prevention is better than cure, it has been the purpose of the dental department:

1. To establish and promulgate a higher standard of dental care.
2. To remedy, so far as possible, existing conditions of unclean mouths and oral diseases, and thereby lessen their liability to contract contagious and other diseases.
3. To prevent dental caries by oral prophylaxis and by the care and preservation of the temporary teeth.
4. To educate parents and children in the hygienic value of healthy mouths and sound teeth.

During the past year a special effort was made to complete dental work for children of the fifth and sixth grades and with the exception of a few rooms, this was done. As many cases from other grades as possible were handled by the department.

As a result of the preventive work of the department, there has been a noticeable decrease in the number of absentees on account of toothache. It is believed that the physical

condition of the children will continue to be improved and that infectious diseases will be much lessened through insuring clean mouths and sound teeth.

—The school board of Derby, Conn., received a report recently from Miss May Donahue, health nurse, showing that during the past year 709 pupils were treated for abrasions, lacerations, burns, boils, styes, impetigo, epetaxis and syncope. Also that 112 pupils were excluded for temperature, sore throat, skin eruptions and symptoms of communicable diseases.

—Oshkosh, Wis. The school board has approved a recommendation that a school nurse be employed for the year 1923-24. The school physician and school dentist have been reemployed for the next year on the same terms as formerly.

—The value of the health survey recently conducted in the schools of Elgin, Ill., was emphasized by Supt. W. T. Harris in a report to the school board. Supt. Harris pointed out that a closer cooperation between teachers and parents of the children had resulted from the survey and that the advice given parents on the proper care of children had been of inestimable value.

A report on the physical condition of children in the first grade showed that Elgin pupils are in good physical condition. A number of children are eligible for the "gold star" class.

—Syracuse, N. Y. A nutritional expert has been employed as a result of funds provided by the Milbank Foundation. Aid will also be given in the promotion of health inspections and other forms of health work.

—From twenty to 33 per cent of the school children of the United States suffer from malnutrition, according to a recent report of the United States Public Health Service which has published the results of a study made by the National Child Health Council. The condition is not limited, according to the report, to any one class or race but is as prevalent in the homes of the well-to-do as in those of more limited means. The condition is due chiefly to physical defects, faulty habits or environment.

—Pottsville, Pa. The school board has voted to employ a school nurse to cooperate with the dental hygienist and to follow up medical inspection work required by the state law.



THE MODERN WAY BUILT IN THE WALL

No locker room is necessary when corridors are utilized as in the High School at Defiance, Ohio.

The Lockers are convenient to the classrooms and exits; avoiding confusion at dismissal time.

Have your architect provide recessed corridor walls to accommodate Berloy Lockers. You should have our catalog Y-7. Ask our nearest office for it today.



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BRANCHES: Boston, New York, Philadelphia, Chicago, St. Louis, Kansas City
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BERLOY STEEL LOCKERS

In a spirited school board election held at Lincoln, Ill. the editor of the Star of that city advanced the following thoughts on school issues as related to candidates:

"If a man has a case upon which to premise his candidacy for the school board let him get into the open with it. Let the school patrons and the public generally understand why he runs and what he runs for. Victory may not always perch upon the banner of one who thus runs yet if a candidate has an issue, success at the polls is not the only thing to be sought. A war for an issue or principle is never won or lost in a single battle. There are no emoluments attached to a school board position and he who aspires to it must do so knowing full well that he will get no dollars and cents in return for his efforts.

There is but one motive which can activate a man or woman who aspires to the school board and that is a mere matter of principle or policy. It is service only which one can render that qualifies or disqualifies him for the school board. It is no place for the lame or the blind but rather a job for the strong. Sympathy controls no votes in a school election, at least it should not, as a school board member enjoys no favors and few courtesies. One therefore need not hesitate to make his case clear before the people.

Getting into the open with a school board candidacy so that the world may know wherefore one is running is a matter of justice to one's self as well as to the public. He who runs under cover is afraid of himself and the voter usually looks upon him as a coward and unworthy of trust. A man who has an issue is never afraid to stand in the light. A fellow is going to have to stand up and be counted once he is elected to a school board and he may as well do it before the election as after for his own good, and much the more should he do it for the interests of the boys and girls whose welfare he is sworn to protect and promote when he assumes office. If anyone wishes to run for the school board let him file his petition and run according to law and good public policy. Let there be no camouflaging of issues or candidacies. If a candidate is worth voting for, it is worth while to let the public know about it, and if it is worth while for one to run for a school board, it is opportune for him to stand out squarely, boldly and firmly.

COMPARATIVE COSTS OF NEW ELEMENTARY SCHOOLS, AT BIRMINGHAM, ALA.

The following table gives interesting information regarding present day total and unit costs for Birmingham's standard type of eight-room elementary school buildings, together with manual training, domestic science and special rooms, without auditorium or gymnasium. The information shows the total cost for the general contract, plumbing and heating and electric light fixtures and wiring, the cost per room and the cost per cubic foot:

	Norwood School	N. B'ham School	Glen Iris School	Ensley School
TOTAL COST				
General Contract	\$ 87,950	\$ 93,450	\$ 87,882 (D)	\$ 94,608
Plumbing			6,649	6,769
Heating	13,005	18,320	10,129	10,479
Electric Wiring			2,970	3,060
Electric Fixtures	2,150	2,700	1,050	1,205
Extra Grading			10,918	
Total Contract	\$103,105	\$114,470	\$119,598	\$116,121
Architects' Fees 5%	5,155	5,724	5,980	5,806
Total Cost	\$108,260	\$120,194	\$125,578	\$121,927
Number of Rooms.....	10 (A)	12 (B)	10 (A)	12 (B)
Cost per Room.....	\$ 10,826	\$ 10,016	\$ 11,411 (D)	\$ 10,161
Number of Cubic Feet.....	352,892	396,432 (C)	344,002	431,070
Cost per Cubic Foot.....	30.7c	30.3c	33.2c (D)	28.3c
General Contractor.....		Day & Sachs	Inglewood Construction Co.	Holley & Davis
Local Architects	Warren, Knight & Davis		D. O. Whilddin	
Supervising Architect.....			William B. Ittner, St. Louis	

A—Includes eight classrooms, kindergarten and library. C—Includes temporary corridor 24,480 cubic feet. D—Exclusive of extra grading and sidewalks for proposed future buildings and entire school property.

B—Includes eight classrooms, kindergarten and manual training and domestic science.

LAW AND LEGISLATION.

Election of county boards of education by popular vote is provided for in a bill introduced in the Tennessee legislature by Senator Remine. Board members now holding office, under the law, will be elected at the April term of the county court and their terms of office expire the first Monday in September, 1924. In August, 1924, an election will be held at which board members will be selected by the people. Candidates for membership must have at least an elementary education, and must be residents of the county.

The assembly of the Wisconsin legislature has approved the Cashman bill barring from public schools, history textbooks containing derogatory statements about the accomplishments of Revolutionary war leaders and leaders in the war of 1812. It is expected that the bill will pass the house and will be finally signed by the governor.

A bill authorizing Blount County and the city of Maryville to unite in the erection of a consolidated Central High School has been introduced in the Missouri legislature. The high

school will be under the joint control of the county and town, each assuming fifty per cent of the cost of maintenance.

Boards of education of Ohio will be required to fund all their floating debts by July first of this year and thereafter, and will be prohibited from borrowing money for current expenses, under a bill passed by the house of the Ohio legislature. The bill will also be acted upon by the senate. Under the bill, all funds coming to boards of education at the August settlement will be available for current expenses.

Holtzer-Cabot

FIRE ALARM AND SIGNAL SYSTEMS

For Schools, Hospitals, Industrial Buildings, Hotels, Factories, Etc.

Holtzer-Cabot electrical equipment has many exclusive features and refinements that are the results of Seventy years' experience in the manufacture of fine electrical instruments. If you are interested in Fire Alarm and Telephone Systems or Program Bells for your school, write for our brochure "Signal Systems for Schools."

Our engineers are at the service of architects and their clients at all times, and in any way they can be helpful.

The first cost is the last cost with Holtzer-Cabot equipment.

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Electric Signaling Systems

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New York, N. Y., 101 Park Ave.
Philadelphia, Pa., 807 Otis Bldg.
Detroit, Mich., 1051 Book Bldg.
Baltimore, Md., 1104 Union Trust
Bldg.

San Francisco, Cal., 408 Claus
Spreckels Bldg.
Minneapolis, Minn., 627 Metropolitan Life Bldg.
Cleveland, Ohio, 517 Union Bldg.

HAS YOUR SCHOOL A MODERN PLAYGROUND

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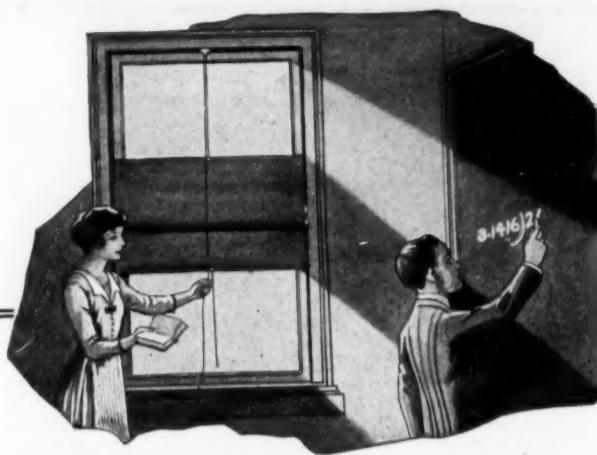
If not, let us submit, gratis, plans and suggestions for a properly equipped yard by our playground specialists.



CHICAGO GYMNASIUM EQUIPMENT COMPANY

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CHICAGO



Better Light and Ventilation

WITH the coming of warmer, brighter days, the problem of lighting and ventilating your school rooms correctly becomes increasingly difficult.

Glaring sunlight must be reduced to a restful glow. In rooms where windows are equipped with ordinary window shades, however, this reduction of light means restricted ventilation.

Solve this summer problem with window shades mounted on Hartshorn two-way rollers. They operate from the center of the window toward top and bottom, and offer complete control of light without interfering with proper ventilation and without causing draughts.

Distributed by converters throughout the entire country.

Write for colors 214 and 204 in tinted cambric which have been approved by competent chemists and adopted by school boards of many municipalities.

STEWART HARTSHORN CO.
250 FIFTH AVENUE. NEW YORK CITY

Hartshorn
SHADE ROLLERS
AND
WINDOW SHADE
FABRICS
Established 1860

Wilson



Wilson Hygienic Wardrobes built into recess in wall. Note ventilating grilles in bottom of disappearing doors. Also blackboard surface in upper panel. JUNIOR HIGH SCHOOL, NEWTON, MASS.

The School Slate and the Cloakroom

ONE has gone. The other going. Both interfere with progress and health. Paper has supplanted slates; Wilson Hygienic Wardrobes, the separate out-of-sight cloakroom.

Our wardrobes are always under the teacher's eye. They are easily and economically ventilated and heated and can be enlarged without any alteration to the building.

For schools with limited blackboard space, blackboard surface can be had on the wardrobe fronts.

Of their many other features our catalog tells. Send for a copy now.

The J. G. WILSON Corporation
14 EAST 36TH STREET, NEW YORK CITY
OFFICES IN ALL PRINCIPAL CITIES



FERALUN *Anti-Slip Treads*

BOARD OF EDUCATION PAYS \$25,000 FOR STAIRWAY

Pretty high, you will say, but neglect in properly protecting pupils from defective and slippery stairs is costly. The Board of Education of New Rochelle, N. Y., did not know they were liable, do you?

ARE YOU SAFE

from a similar suit? Now is the logical time to make all stairs safe. The vacation period is near, so inspect all your school stairs and where necessary provide Feralun Anti-Slip Treads.

307 SCHOOLS IN 31 STATES LAST YEAR

have equipped stairs with Feralun Anti-Slip Treads, a competent defense against accidents.



Ask for further information.

AMERICAN ABRASIVE METALS CO.
50 Church St., New York, N. Y.

It is not the Heat that impairs the efficiency of the Student —

It is the stagnant air—the stale air that is not drawn off—the lack of circulation in the schoolroom—the lack of proper ventilation.

To keep the air moving, to provide FRESH AIR in every part of the school every minute of the day, is the important function of

"GLOBE" VENTILATORS

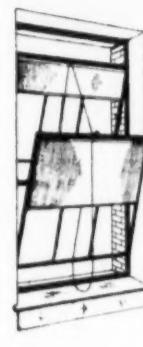


"GLOBE" Ventilators are the "suction" type that operate perfectly at all times without the aid of any mechanical device or power. They are quickly and easily installed on either old or new buildings, and once installed there is no operating or upkeep expense whatever—you get

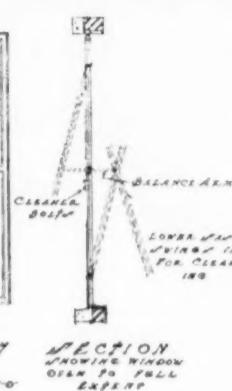
EXPENSELESS VENTILATION

Write for catalogue and list of prominent schools where "GLOBE" Ventilators are maintaining perfect conditions in school and class rooms.

GLOBE VENTILATOR CO., Dept. J., TROY, N. Y.



INTERIOR VIEW

ELEVATION
SCALE 1/4" = 1'SECTION
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WINDOWS IN STEEL ARE
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THEY ARE GUARANTEED TO
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SELECTED FOR THESE SCHOOL BUILDINGS:

AGRICULTURAL and ENG. COLLEGE
RALEIGH, N. C.

AUDITORIUM UNIVERSITY OF
FLORIDA
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TOLEDO, OHIO

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CASEMENT CO., Inc.
JAMESTOWN, N. Y.

—Chicago, Ill. The salaries of elementary school principals have been increased from \$4,800 to \$5,300.

—Stevens Point, Wis. The school board has adopted a salary schedule providing for increases under the schedule of \$0 to \$100, and individual increases as high as \$25 per person. Under the schedule, teachers are divided into three classes according to preparation. Class one includes graduates of a normal school with a two-year course; class two includes graduates of a normal school with a three-year course; class three includes graduates of a college or university.

The salaries under the schedule are as follows:

Class 1—Years of experience—none, \$1,000; one, \$1,050; two, \$1,100; three, \$1,150; four, \$1,200; five, \$1,250; six, \$1,300.

Class 2—Years of experience—None, \$1,100; one, \$1,200; two, \$1,250; three, \$1,300; four, \$1,350; five, \$1,400; six, \$1,450.

Class 3—Years of experience—None, \$1,300; one, \$1,400; two, \$1,500; three, \$1,550; four, \$1,600.

Yearly increases are automatic for teachers who are successful and progressive. Teachers whose work is unsatisfactory will be retained for not to exceed one year on trial without increase. Teachers with outside experience will be given one-half credit for such experience.

—Fargo, N. D. With the adoption of a policy of economy, the school board has reduced the salary of grade teachers from \$1,300 to \$1,200. The maximum for normal graduates teaching in the grades will remain at \$1,600, while in the junior high and senior high schools, the present schedule of \$1,500 as a minimum for college graduates and \$2,000 as the maximum, will remain in force. The maximum for teachers holding the master's degree will be \$2,100. Increases for teachers are limited to those who have taught two or more years and who did not receive increases last year.

The salaries of principals of elementary schools have been readjusted to conform to a rule of the board of several years' standing, giving the regular teaching salary plus \$35 for each classroom supervised.

—Beloit, Wis. After suspension for one year, the school board's salary schedule provid-

ing for yearly increments of pay to successful teachers, has been restored, beginning with the school year in September. Under the schedule, about one hundred teachers will be eligible for advances in salary of \$50. Most of the remaining sixty teachers have attained the maximum salaries and are not eligible to further increases.

The salary schedule gives yearly payments of \$1,000 to graduates of Wisconsin normal schools teaching their first year. The starting salary is \$1,100 for those who have had an additional year of university work and \$1,200 for graduates of colleges or universities. Those who have had a year of post graduate work get \$1,300. On this basis salary increments of \$50 are supposed to be added for each year of teaching which has been satisfactory. Seven such increments are the most to be allowed except that the board reserves the right to give "super-maximum" salaries to exceptionally successful teachers.

—River Rouge, Mich. The present teaching staff has been reelected on long tenure contracts. Such teachers will continue to hold their positions indefinitely through efficiency and good behavior.

All teachers have been granted increases in salary; the grade teachers receiving increases of \$50 and high school teachers \$100.

Hereafter, teachers in the grades with the same training and experience as those in the high school, will be paid the same salary where the length of daily service is the same. Under this plan, a first grade teacher with a degree will receive the same recognition as a senior high school teacher. The plan calls for the merit scale for measuring a teacher's efficiency.

As an incentive to further professional study, the board has offered to pay teachers who take extension or summer school work \$5 per credit hour. This amount will continue as a permanent part of the teacher's salary until the maximum has been reached.

TEACHERS AND ADMINISTRATION.

—An annual tax levy of three mills for the Minneapolis teachers' retirement fund was approved by the Minneapolis, Minn. board of education.

—The board of education of Minneapolis, Minn., has placed itself on record as being un-

prepared to take a definite position of the question of permanent tenure for teachers and, therefore, has expressed opposition to state legislation on the subject. The board voted the payment of salaries to teachers while in attendance at the Cleveland N. E. A. meeting.

—Oshkosh, Wis. Under a salary schedule adopted in 1922, 21 teachers of the grades and directors of the kindergartens who have rendered faithful service to the schools, will be given increases of \$150. Kindergarten assistants will be given increases of \$100. In no case is the advance to carry the full salary beyond the established schedule. The schedule provides a maximum of \$3,000 for principals of elementary schools and for the assistant principal of the high school.

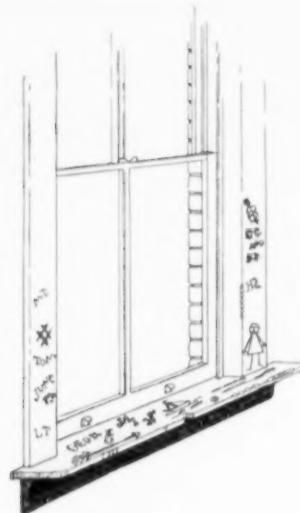
—New York City has a number of teacher's organizations. The question of uniting them into one body was recently submitted to a referendum vote. Out of a total of 12,478 teachers 12,242 cast their ballot. Of these 11,114 voted in favor of the proposal and 1,364 against it. Of 167 teachers in eleven evening schools, 142 also favored the plan.

—Seattle, Wash. The board has adopted a policy not to employ teachers for the first time who have attained the age of 40 years. It was brought out that a number of the teachers remain in the school system for years and it was felt that new teachers should be those fresh from the training schools with new ideas and new methods of teaching.

—Provo, Utah. Principals, teachers and supervisors in the schools recently engaged in a clean school contest. A prize of \$50 was given to the school attaining the highest rank, \$30 to the second best, and \$20 to the third. The movement was carried out with the aid of the Utah Public Health Association which prepared the plans for the contest.

—Canton, Ill. Tests to determine the rank of students in relation to standard scores, have been undertaken in the schools. The results showed that some students rank high above the established standards, while others are below the table of standards.

Monroe's Standard Test in Reading Comprehension which was given in the schools, was prepared in tabulated form and compared with the results in other schools. The following tables show the results:



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4th Grade	7.7	7.7
5th Grade	9.8	9.8
6th Grade	11.4	11.1
7th Grade	13.1	12.6
8th Grade	14.7	13.8

—Dr. Howard R. Driggs, formerly of the University of Utah, now of New York City, and the author of a number of textbooks on the teaching of language has just closed a very successful piece of work in the schools at Greenville, N. C. Dr. Driggs taught three classes each day in the different departments of the school, and it was arranged so that all the teachers of the schools could observe him do this work. Immediately following the demonstration there was a short round table, and each afternoon there was a general teachers meeting. This bit of professional improvement proved to be very successful from every standpoint. The teachers and the children both liked him, and it was very evident that a great amount of good was done.

—During the first six months of his incumbency of office, Dr. John J. Tigert, the United States Commissioner of Education, visited every state in the Union and delivered 350 addresses.

—The Hackensack, N. J., board of education issues a quarterly bulletin which deals with the school finances, courses of study and the general progress of the schools. William E. Stark is the superintendent.

—Portsmouth, N. H. The "City of the Open Door" as it is called, has made a record for itself in parent-teacher association work. There are at present five large associations connected with high and elementary schools and three smaller ones connected with smaller buildings.

A "central committee" made up of the representatives of the several associations, acts as a clearing house for matters of community interest. The united vigorous protest of the associations was recently the chief cause of holding in office a very successful school nurse whom the politicians attempted to dismiss.

A survey of the school property and school work of Titusville, Pa., will be made under the direction of Superintendent N. C. Koontz.

The only expense to the Titusville school district for this survey will be the maintenance of the state officials while they are in Titusville for perhaps a period of two weeks. No salary or railroad fare is paid, simply the hotel bills for the two or three men, who may be sent to make the survey.

WHY THE SCHOOLS COST MORE.

In discussing school financing Superintendent B. W. Tinker of Waterbury, Conn., recently uttered the following:

"In any study of school finances it must be borne in mind that in recent years many expenses that were left to the individual parent have now been placed under the educational board because it was possible to handle them collectively at a less expense. While this has resulted in a decreased total expense to the community it has resulted also in a larger sum expended directly under the department of education.

"In 1920 the schools of this country cost slightly over one billion dollars, which is an enormous increase within recent years. A large part of this expense is due to the tremendous growth of the high schools. But it is interesting to note at the same time that the American nation spent three billions of dollars on cigarettes, candy and chewing gum, three billions of dollars on new automobiles, over one billion of dollars on face powder. It would seem, without entering into a discussion of the relative values of education and candy and chewing gum, cigarettes and face powder and automobiles, that the expenditures for education would, in comparison with the expenditures for the above mentioned items, not appear to be excessive. It would seem also to be a fair statement that, if the country can afford to spend one billion dollars a year on face powder, for example, it could easily afford to spend a billion of dollars on education without seriously disrupting its financial status. Of course, there is waste in education the same as there is in any agency, but it seemed to be of the general opinion that the investment was paying pretty fair dividends.

"Of course, in order to provide necessary funds it is generally recognized that it is hopeless to depend upon the property tax as the sole source of state and local revenue if we are

to finance the program of education. In some way or other the state and the city must secure additional revenue by a system of taxation which bears with equal weight upon all."

A Michigan School Tax Proposal.

State superintendent Thomas E. Johnson of Michigan proposes a tax on insurance and inheritances in aid of the state school fund. The railroad tax is now the chief source of the states' school fund. His plan, he holds would increase the fund from \$11,500,000 to \$16,000,000. He does not advocate the direct payment of the inheritance tax into the school fund but proposes that the revenue be invested and that the earnings upon the same be used for school purposes.

In reviewing the local school support he demonstrated that while the tax was one and a half mill in some districts on \$1000 valuation it ran as high as \$54 in others.

Speaking of the relation of actual enrollment to assessed valuation, Mr. Johnson said, "The intensities of school loads, in various districts, varies from less than one enrolled pupil per \$100,000 of assessed valuation to over 75 pupils per \$100,000. That is, in some districts, \$100,000 of assessed valuation must bear a tax levy sufficient to provide school facilities for less than five or 10 pupils actually enrolled in public schools, whereas, in other districts \$100,000 of assessed valuation must bear a tax levy sufficient to provide school facilities for 30, 50 or as high as 80 pupils actually enrolled. Under the present plan of apportioning the primary school interest fund the districts of the first mentioned class received just as much per school census capita as do those of the second class."

—Seattle, Wash. The school board has denied a request of the Lincoln High School Parent-Teacher Association for the use of the school gymnasium for community dancing. The board's action was based on the belief that the school buildings would of necessity be opened to all associations and that it would be compelled to distinguish as between wholesome and unwholesome associations for conducting the dances. It was the belief of the board that the request would be the forerunner of many similar requests that would gradually turn to uses of extremely doubtful character.

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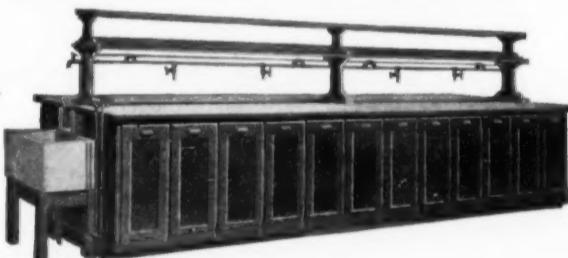
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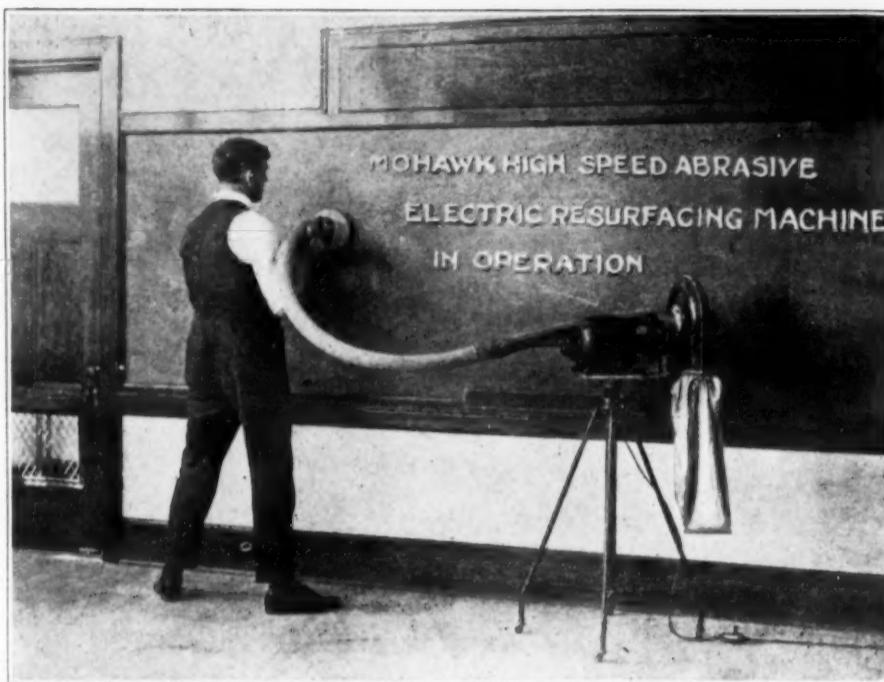


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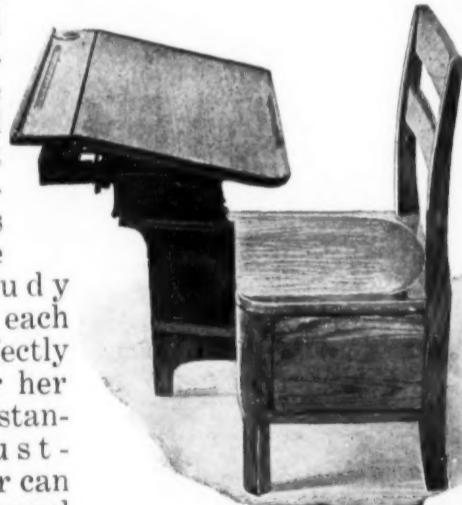
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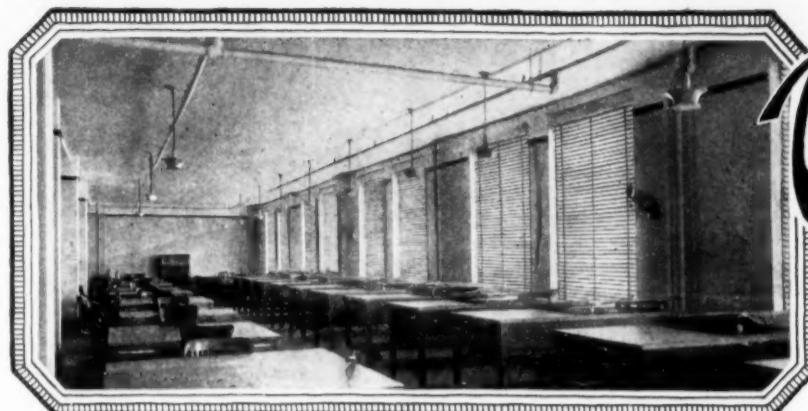


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—Mayor-elect William E. Dever of Chicago, would like a complete new school board. The law, however, secures the places of the present eleven trustees until their terms expire. They cannot be forced to resign. Some of the members have expressed their willingness to retire.

—The offices of the Philadelphia board of education are said to be small and dingy. The office of Superintendent Broome is reached by climbing rickety steps, and the office of Secretary Dick is even more inconveniently located. The press is urging better quarters.

—Arthur W. Hewitt of Plainfield has been appointed chairman of the Vermont state board of education.

—The matter of authorizing employes to attend conventions recently came up for consideration by the Newark, N. J., school board. Heretofore, the authority was exercised by the instruction committee. Hereafter the full board will determine to act in the matter.

—Ervin E. Lewis has resigned the superintendency of the Rockford, Ill., schools to accept a like position at Flint, Mich., at a salary of \$8,420 a year.

—Fairport Harbor, O. The school board, by resolution, recently established a school library containing 1,250 volumes as a public library. A tax levy of \$6,500 was levied for current expenses, including salaries and books, the remainder to be held as a nucleus for a library building fund to provide for a separate building at some later date. The library at present is housed in the high school.

The board has planned to levy a tax of \$6,500 each year for a period of four years, the total at that time being calculated as sufficient to build the proposed library building on the high school campus. This is in line with an idea of the board leading toward the erection of a group of buildings, all of which will form the present junior-senior high school building on the six and one-half acre campus.

—A new school known as the Cody School, has been occupied at North Platte, Neb. The building which is built on ground formerly owned by William Cody, (Buffalo Bill), was filled to capacity the first day.

—On the evening of April 11th the New

York and Brooklyn chapters of the American Institution of Architects tendered a dinner to C. B. J. Snyder at Delmonico's, New York City. The dinner meeting was conducted under the slogan "Housing a Million Children." Mr. Snyder began his work for the New York board of education in 1891 and remained until early this year. During the 31 years he planned and built over 400 school buildings at a cost of over \$180,000,000.

—At Providence, R. I., the city council proposes to cut the school budget from \$2,905,000 to \$2,525,000. If the cut is effected, Superintendent Isaac C. Winslow holds, several schools will have to be closed.

—The Seattle, Wash., school board will receive a 3 mill levy for school building purposes. This will net \$750,000. An increase of \$60 in teachers salaries will add \$90,000 to the school costs but this amount is not to be taken out of the building fund but to be obtained by making school administrative changes.

—The school budget of Minneapolis, Minn., will have to be reduced by several hundred thousand dollars, says Superintendent W. F. Webster. The tentative schedule calls for a tax revenue of \$5,630,282 for 1924, an increase of \$383,413 over that of this year's budget. Including the receipts from state and federal aid and miscellaneous revenue, the total 1924 budget would amount to \$6,794,762, an increase of \$569,762 over the 1923 allowance.

—The Chicago board of education finds that it cannot, owing to a shortage of funds, pay the salary increases made since the present budget was adopted. President Robertson, therefore, refuses to sign vouchers which embody the increase. The sum of \$20,000 is involved in the increase and the board is not authorized to negotiate a loan.

The school authorities of Detroit, Mich., completed a physical examination of 21,049 children in the first grade. The results of the examination reveal 7,957 children with enlarged or infected tonsils; 5,613 with badly decayed or abscessed teeth; 2,350 with impaired vision; 1,469 mouth breathers; 334 with abnormal heart condition; 318 with defective hearing, and 304 with suspicious lung conditions.

—H. R. Bonner, formerly with the United States bureau of education, is now located at Pasadena, Calif., where he serves as the educational director of the International Narcotic Educational Association. He recently prepared a bulletin on the menace of morphine, heroin and cocaine.

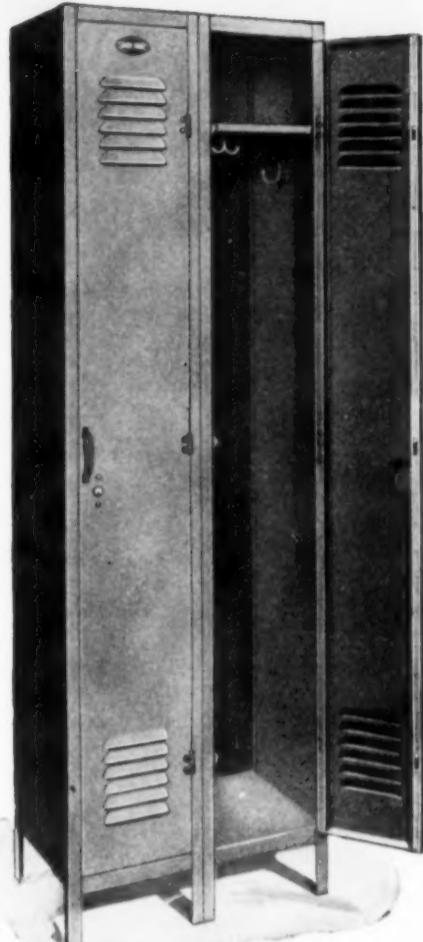
—Richard G. Boone, former head of the Michigan State Normal School and at one time superintendent of the Cincinnati schools, died April 10, at Berkeley, Calif., following a three years' illness.

—Charles H. Smith and William H. Miller have succeeded themselves as members to the Spokane, Wash., school board.

—The Arkansas supreme court in the "Knobel lipstick case" has decided that the school board at Knobel, Ark., was authorized to prohibit the girl students from using powder and paint upon their faces while at school. Miss Pearl Pugsley a student insisted that she had the right to "doll up" as she pleased. Her father backed her up and carried the case into the courts. The supreme court held that the school board rule was "just and reasonable and should be enforced."

—The supreme court of New Jersey has decided that the business manager of the Newark, N. J., school board is subject to the local civil service rules. The board has instructed its attorney to appeal the case.

—Members of a board of education may be chosen at an election held on the same day as that when members of congress are chosen, as the government election has no application to schools, according to an opinion of the Court of Appeal of Frankfort, Ky. In its opinion, the court held that all elections affecting schools are exclusively under legislative control, and are not included in the election articles of the government constitution. The court granted an injunction restraining three members of the Pikeville board from interfering with William Ramsey and two other members elected at the last November election. The latter were successful in winning the last election and the defeated men contested the election on the ground that the new members could not be elected at the November election.



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AURORA, ILLINOIS.

—Hon. Mark E. Reed, who is at present the speaker of the lower house of the Washington state legislature, proposes to erect a \$40,000 high school at Shelton, Washington, and present the same to the town. The only condition that Mr. Reed exacts is the proper equipment and maintenance of the building. The structure will be known as the "Irene S. Reed School" in honor of Mrs. Reed who served for fifteen years on the local school board.

—Associate Superintendent Edgar D. Shimer and John H. Walsh of New York City will reach the compulsory retirement age of seventy before September 1, 1923.

—Framingham, Mass. Statistics show that only five per cent of high school graduates throughout the country go to higher schools of learning. It is indicated in recent statistics that of the 86 graduates of last year's class, 45 are continuing their education; eleven boys and ten girls are in college; ten girls are in state normal schools; four boys and ten girls are attending other schools.

—Many a superintendent is equipped by training to perform all duties required of him by statute," is the contention made by C. B. Glenn of Birmingham, Alabama. "He may be able to make an excellent curriculum, to recognize and select strong teachers, to manage wisely the finances of the school system, but if he fail to create and assist in maintaining a public opinion favorable to education, the sources of revenue, to mention nothing else, are apt to dry up, and his well laid plans remain unexecuted."

THE TEACHER RATES HERSELF.

Carl Burris, Superintendent, Sloan, Ia.

It would be a fine situation in all lines of work if the worker would stand up to a measuring stick and determine if he is really measuring up to all that the job demands. And there would be a world of satisfaction in knowing that one is making good. Factory workers are rated by various methods and since they deal with material things it becomes a fairly easy matter to determine the individual's value to the company. Just count the pairs of shoes, or hammer handles, or other articles as they pass the inspector—that's all that is needed. But it is not so easy when one is measuring

that intangible thing we call education. The teacher was once rated by a few simple questions in the conversation that went the rounds at the Ladies Aid: "Does she dress neatly?" "Do the children like her?", "Are the children all going to 'pass' this term?" The same questions may be in vogue these days, but we have other ways of rating now.

The present discussion will not presume to suggest that the teacher may rate herself and fix her own salary or that there is a manner by which every teacher may literally know how her rating appears on the principal's or supervisor's secret sheet. There is only one way to do that—get the sheet some way and see for yourself. These days we recognize the value of silent reading tests, knowing the pupil's mental age, and the use of standard tests of many kinds. Furthermore, we have in most schools the monthly or term report card on which the teacher indicates grades for the pupil. For some of various reasons the teacher may not give Thomas the low mark which he deserves and she may grade Jack lower than he deserves. Perhaps Jack should be a grade or two ahead and that fact has not been discovered. Perhaps the subject matter is too easy for Jack and his lack of effort in the subject and his surplus of effort in creating a disturbance is the main cause for his own low grade. He may be lazy—seeing that it is so easy to "get by." But if we admit that there should be a close agreement between the grades a teacher gives on the report cards and the rank of the pupils in some standard test in that subject, then a means is open to the teacher to check up on herself and to determine if she is ranking her pupils justly on their term or semester reports. There is always that element of effort and application which enters into the present system of marking and must not be overlooked.

A comparison was recently made with the reading classes of a 6th, 7th and 8th grade—all under one teacher. Previous to giving out the semester grades a Monroe silent reading test was given but the teacher was not guided, unless unconsciously, by this test in giving semester grades. Then for comparison the pupils of each grade were ranked according to the comprehension score in the Monroe test and

also ranked according to the grades on their semester report cards. A comparison by groups was made with the following results:

	Group of ten highest in Com- prehension Score—also in the group of ten highest in semester grades	Group of ten lowest in Com- prehension Score—also in the group of ten lowest in semester grades
Sixth Grade	10	10
Seventh Grade	10	8
Eighth Grade	10	10

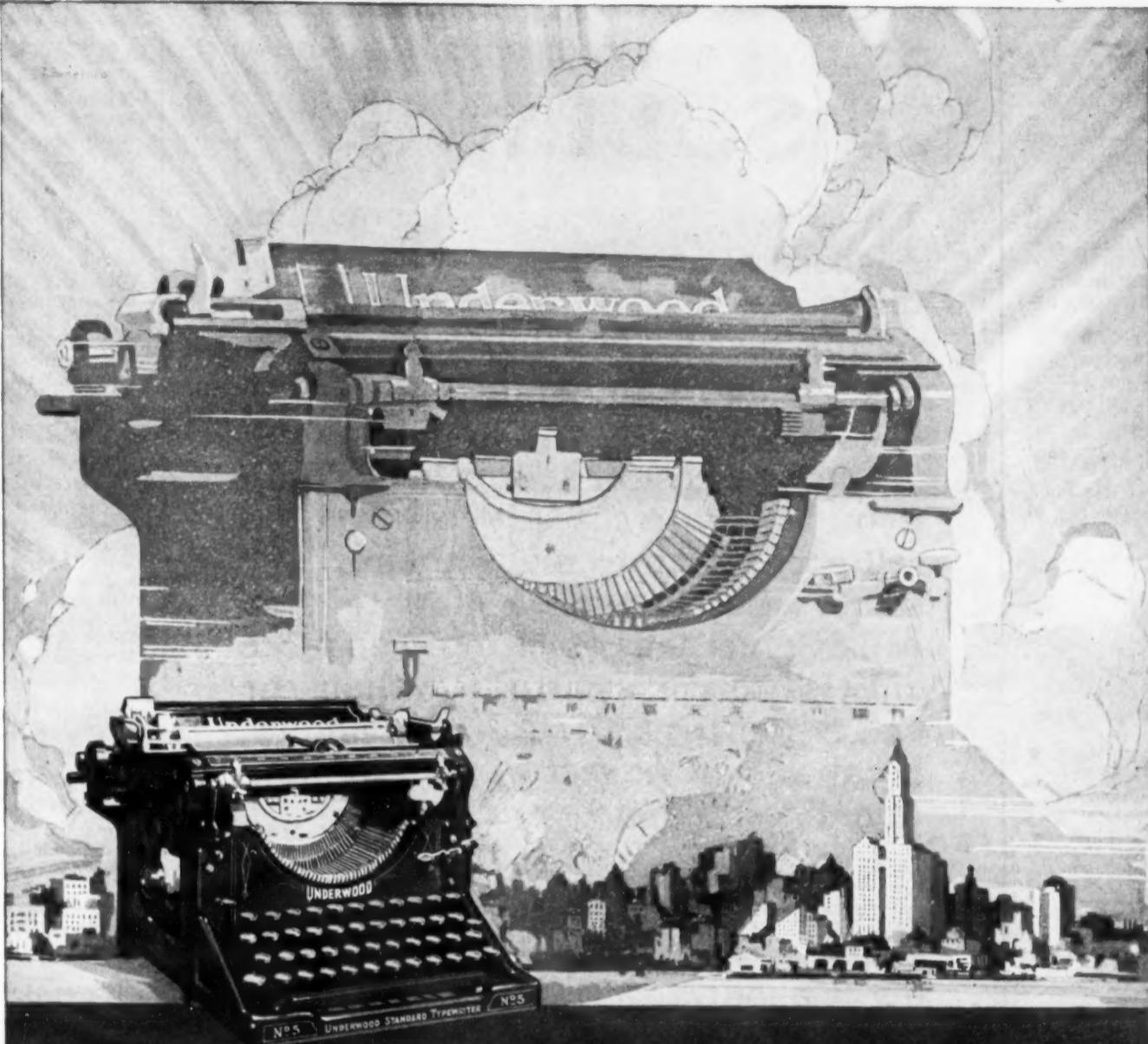
(The enrollment averaged 25)

It is noted that there was almost perfect agreement in the personnel of the top and bottom groups in each grade when comprehension score and semester grades were compared.

In the sixth grade there were eight pupils who ranked lower in semester grades than in comprehension score. Of these pupils four are naturally lazy and come from homes where there is little more to read than the almanac and two are subnormals. Of the seven pupils in the seventh grade who ranked lower in semester grades than in "comprehension score," five of them would be called lazy. Of the thirteen pupils of the eighth grade who ranked lower in semester grades than in "comprehension score," eight were naturally lazy and two of the remaining ones are inoculated with the deadly germ "puppy love."

It is not argued that perfect agreement should be found in any similar comparison. However, it should be an indication of ability to evaluate the pupil's mark in that subject. Other standard tests may be used for other subjects.

Teachers should make more use of that thing that we call self-analysis. She should rate herself every day and happy is she who finds that in every way she is growing better and better. Exceedingly happy will be the community and all concerned when we have teachers who have the habit of analyzing their own strength and weakness and who take immediate action to render full service. And incidentally this applies to all—to you who read this and to me.



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JESSE H. NEAL, *Executive Secretary*

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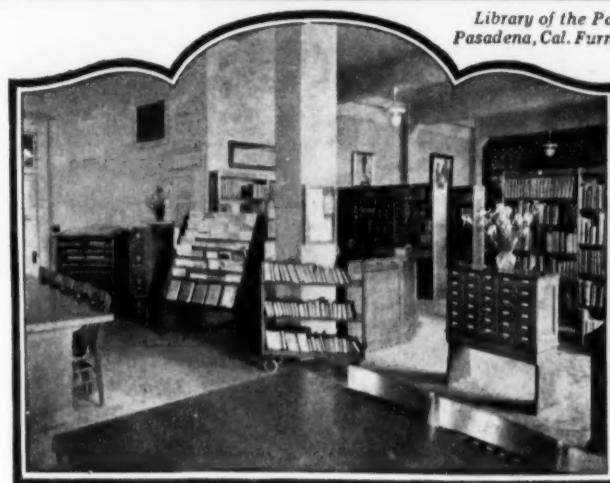
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NEW YORK CITY

B

"After several years' use of it (L.B. Library furniture) and also of clever imitations I can say only that the imitation suffers by comparison. L.B. furniture is so carefully and scientifically planned, so thoroughly well constructed and the finish so durable that once installed it is permanently satisfactory."

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Librarian



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Pasadena, Cal. Furnished by Library Bureau

"Permanently Satisfactory"

The school authorities of the Pasadena High School, Pasadena, California, bought L.B. Standard school library equipment solely because they were convinced of the economy of having a superior library—one suitable both for today and a generation from today.

Read the letter above. Investigate the experiences other schools have had with L.B. equipment.

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F. W. Wentworth & Co.
39 Second Street

Salesrooms in leading cities in the United States, Great Britain and France

RESEARCH IN THE VIRGINIA, MINN., SCHOOLS.

(Concluded from Page 60)

If this system of records is kept up-to-date, as we have planned, it will accumulate a large body of facts concerning the various pupils, and in a year or two's time, will prove a most valuable aid in vocational-educational guidance.

Another interesting project, which we carried on during the year, was a study of the pupil distribution. The "spot map" study was undertaken to show the approximate location of every child in the grades, kindergarten to eight, inclusive. The final report consists of fifteen mimeographed maps; nine showing the distribution by grades, six showing the distribution by buildings.

The study was valuable in determining new boundary or district lines for the schools and was essential in connection with the building program. The data were used in determining the size of the new Lincoln building and in suggesting a redistribution of 607 pupils between the new Washington building and the Northside School.

At the close of the year the director of the department published an annual statement. This mimeographed report consisted of 49 pages of typewritten matter, tabulations and graphical representations. The first seven pages outline a proposed scheme of work for the present year. Numerous quotations from leading educators were used to support the program of achievement and general tests. The last forty-two pages give a synopsis of the major tests and projects undertaken by the department during the past year, 1921-1922.

The report was made for the purpose of conveying to the board of Education an idea of the extent of work done in the name of research, and to carry to the teachers an account of the

	PROGRESS	GRADE	STATISTICS	3B	3A	4B	4A	5B	5A	6B	6A	%
Rapid	3-0	..	..	..	..	..	..	..	..	1	..	.05
	2-6	..	..	..	..	..	..	..	..	..	..	..
	2-0	..	..	..	..	..	..	..	..	..	..	..
	1-6	..	..	..	..	..	..	..	..	..	..	..
	1-0	..	..	..	..	..	..	..	..	..	..	..
	0-6	..	..	..	..	..	..	..	..	..	..	..
Normal	132	125	92	160	60	88	62	56	54	54	58	54.1
	56	11	58	38	26	12	39	32	40	24	41	19.4
	1-0	22	22	15	14	25	15	19	1	35	19	38
	1-6	..	4	5	3	2	5	5	7	5	7	2.91
	2-0	..	1	..	1	2	3	2	3	13	5	17
	2-6	..	..	..	..	..	..	..	4	2	2	.65
	3-0	..	..	..	..	1	1	..	1	2	..	.25
	3-6	..	..	..	..	1	..	..	1	..	3	.50
	4-0	..	..	..	..	..	..	..	..	..	1	.05
	4-6	..	..	..	..	2	..	..	..	..	..	.10
	5-0	..	..	..	..	..	..	..	..	1	..	.05
	5-6	..	..	..	..	..	..	..	..	..	..	..
	6-0	..	..	..	..	..	..	..	..	..	..	..
	6-6	..	..	..	..	..	..	..	..	..	..	..
	7-0	..	..	..	1	..	..	..	..	..	..	.05

This table is to be read as follows: In the one B grade there are 132 pupils who have made normal progress; 56 are one-half year slow for their grade; 1 is one year slow for his grade; 2 are one year and a half slow for their grade; and 2 are two years and a

half slow for their grade. Note that in the three B grade there is one child who was reported to be seven years slow for his grade. It has taken this child seven years longer to get to his grade than it has taken the normal child.

of the building are arranged chemical and physics laboratories with a lecture room between the seats of the latter being stepped. The laboratories are equipped with vent hoods, supply rooms, sinks, gas and electric plug outlets. The remainder of the second floor is taken up with two classrooms, a recitation room and the superintendent's offices, the latter having a large fire-proof vault.

Types of Construction and Cost.

The economy of the type of construction used is fully appreciated when the cost of the building is considered. The building including heating, plumbing and electric work, septic tanks, sump pumps, well pump, etc., was contracted for at \$76,500. The building contains 378,780 cubic feet which, based on the above figures, makes the cost a trifle less than twenty cents per cubic foot. In addition to the above, approximately, \$16,200 was spent for equipment, architect's fees, busses, lockers, lighting,

Standard L.B. school library equipment in quartered oak

- Card catalog cases
- Charging desks
- Reading tables and chairs
- Unit wood book-shelving, wall and double-faced
- Periodical racks
- Dictionary stands
- Atlas cases
- Display cases for books
- Glass door book-cases
- Vertical units for pamphlets, clippings and picture files
- Book trucks
- Exhibition cases
- Bulletin Boards
- Lantern slide cases

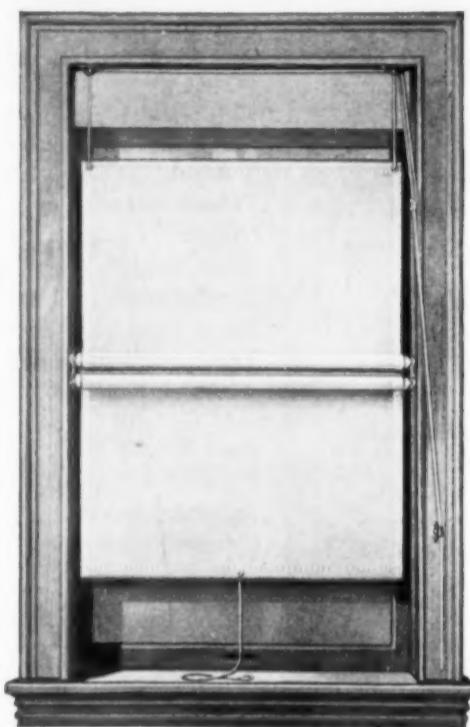
School library supplies

Administrative school records and files for superintendents, principals, department heads, secretaries, etc.

Write for catalogs and information

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SAVE EYESIGHT AND INCREASE EFFICIENCY



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mounted inside casing.

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Double Roll Canvas Shades are the best and give the greatest satisfaction.

For use in Schools, Offices, Hospitals and public buildings.

Can also be made of any Standard Shade Cloth.

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Efficient, good looking, economical, trouble proof and will last for years.
Can be instantly adjusted.

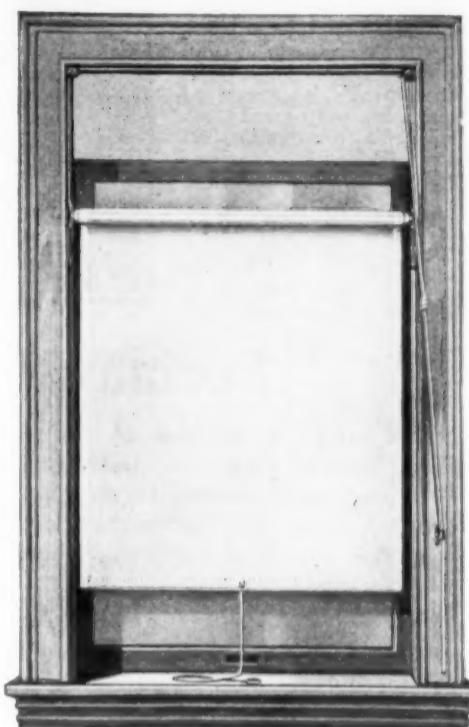
When single roll adjustable shades are needed, use the Simpull Single Roll Shade.

Can be obtained from leading
School Supply Houses.

Write for Circulars.

S. A. MAXWELL & CO.
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PITTSBURGH



The Simpull Single Roll
Adjustable Shade.

KANSAS CITY

For service and quality use Maxwell's Dependable Window Shades.

fixtures, shades, etc., and adding \$6,000 for the cost of the site makes a total investment of \$98,700.

The building has, at present, a school of only 200 children with capacity for that many more. It is arranged so that wings may be built on both ends without making any material changes. In every detail the building is of the highest class construction following the most rigid state specifications and is a monument and a source of pride to the far-seeing and generous citizens who made it possible.

The building was designed by Byron E. Mills, architect, of Detroit, Michigan, who also super-

intended the construction of same. Mr. Mills makes a specialty of school design having designed a number of school buildings throughout the state among which are the Northville, Dearborn, Brown City, New Haven, Newburg, Hamtramck, Greenfield, Grosse Pointe, Sibley and several schools surrounding Detroit which have recently been annexed to the City.

SCHOOL BOARDS VS. CITY COUNCILS.

At Holyoke, Mass., an editor, who is evidently tired of the wrangling between the local school board and the city council and who does not favor financial independence for the former, delivered himself recently of the following:

"Elected to represent the common people and to provide the best there is for the rising generation in educational lines, the average school board member is usually found representing himself and providing the best there is for the employes of the department.

"City councils have their weak spots. So do school boards. City council members seem to have in mind, sometimes, much more tender interest in 'getting the old man a job' than they do in substantial matters. So do school board members. Council members sometimes are found who live with their snouts in the public troughs most of the time. The same for school board members."

PERSONAL NEWS.

—Mr. T. V. Eddy of Camden, Mich., has been elected superintendent of schools at Three Oaks.

—Mrs. Mary C. C. Bradford, state superintendent of instruction for Colorado, is said to be the only person in Colorado who has served four consecutive terms in the same state office.

—Mr. Albert H. Hill, superintendent of schools of Richmond, Va., has been made a member of the State Board of Education.

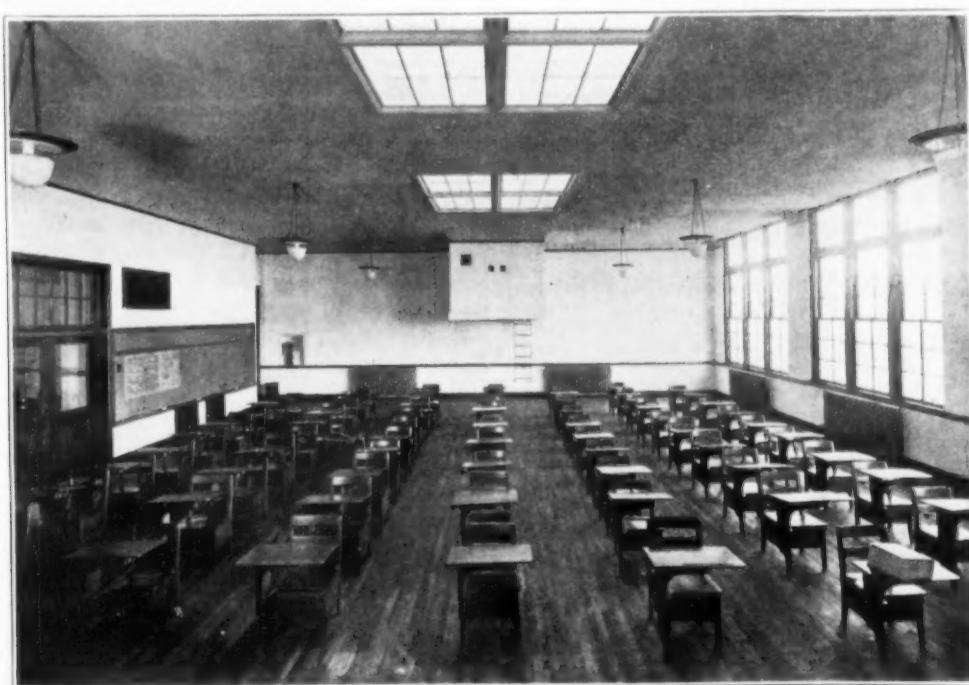
—Mr. John H. Growney was elected as president of the Virginia State Board of Education, to succeed the late J. C. Hurt.

—Supt. Wm. R. Peck of Holyoke, Mass., has been unanimously reelected on tenure.

—Mr. Otis Strong, superintendent of schools at Auburn, N. Y., died February 18th, after a brief illness of pneumonia. Superintendent Strong previous to his election to the superintendency, had been head of the mathematics department in the high school. He was a skilful instructor and a wise administrator.

Mr. George F. Barford, principal of the junior high school, has been elected acting superintendent at Auburn, to fill the vacancy.

—William E. Higginbotham of the firm of Malcomson, Higginbotham & Palmer school architects, Detroit, Mich., died of pneumonia at Atlanta, Ga., on April 9, 1923. Mr. Higginbotham has designed and built schoolhouses for a period of 33 years including the most important structures in Detroit.



AUDITORIUM—LOOKING TOWARDS PICTURE BOOTH. WALLED LAKE CONSOLIDATED SCHOOL, DETROIT, MICH.



Why every one likes PENEX SCHOOL PENCILS

Every Penex Pencil is made to please the user. Manufactured entirely in our own plants, Penex quality is insured by three generations of "knowing how."

Penex Pencil wood is carefully selected, accurately machined and easy to sharpen. Penex lead is smooth writing, long lasting, and gritless. The balance of Penex Pencils is perfect. They are easy to hold and comfortable for growing fingers—the Penex *Semi-Hex* Pencil especially so.

Penex School Pencils, Crayons and Assortments have been used for many years in schools throughout the country. They are popular with school boards, teachers and pupils alike. They are fairly priced and their quality makes them doubly economical.

Penex *Two-in-One* is an ordinary size, round pencil with large diameter lead for beginners. Penex *Scribe* is round, untipped, and comes in four grades for general use. Penex *Calendar* is hexagon—yellow and green finish, tipped or untipped.

Ask your school supplies jobber about these Penex Pencils. If he hasn't them write us direct for samples and full information. Address Department J.



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MAKERS OF LEAD PENCILS
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Colors that Simplify the teachers' problem

THE art instructor faces difficulties enough without the additional handicaps intractable water colors impose.

Devoe Colors put no difficulties in the instructor's way. Their good lifting and blending qualities; their uniformity of texture and hue, help the instructor and pupil both to achieve the best results from their efforts.

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Manufactured by

Devoe & Reynolds Co., Inc.
New York Chicago



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made for plaster Backs and Ends, no divisions, and with Evans Process Hollow Sanitary Door, hung on double pivoted arms, without guides, tracks or rollers, swing easily and silently. They cannot stick or bind. Made with or without Blackboards. Hardware can also be purchased separately.

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Closet Seats
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Crayon Troughs
Damproofing Compounds
Deadening Felt
Deodorizers
Decks—Pupils'
Teachers'
Dictionaries
Dictionary Holders
Diplomas
Directory Tablets
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Display Fixtures
Domestic Science Equipment
Benches
Doors and Sashes
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Drinking Fountains
Duplicators
Dusters (Sanitary)
Electrical Equipment
Electric Ranges
Erasers
Eraser Cleaners
Fans—Blower
Fans—Ventilators
Fences
Filing Cabinets

Filing Systems
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Fire Extinguishers
Fire Hose
Fireproof Doors
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Kindergarten Supplies
Laboratory Equipment
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Library Supplies
Lighting Equipment
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Erasers
Eraser Cleaners
Fans—Blower
Fans—Ventilators
Fences
Filing Cabinets

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Typewriters
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Valves
Varnish
Ventilating Apparatus
Wagons
Wall Boards
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Wall Paints
Waste Baskets
Water Color Materials
Water Heaters
Water Pressure Systems
Waterproofing
Water Purifiers
Water Systems
Weather Strips
Windows and Window Sash
Window Ventilators
Wire Window Guards
Wood
Woodworking Machinery

AMERICAN SCHOOL BOARD JOURNAL, Milwaukee, Wis.
Gentlemen—We are interested in the items as checked above. If you will place us in touch promptly with manufacturers you will be of help to

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102

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Electric Clock Systems

Our equipment is most simple, economical and reliable.

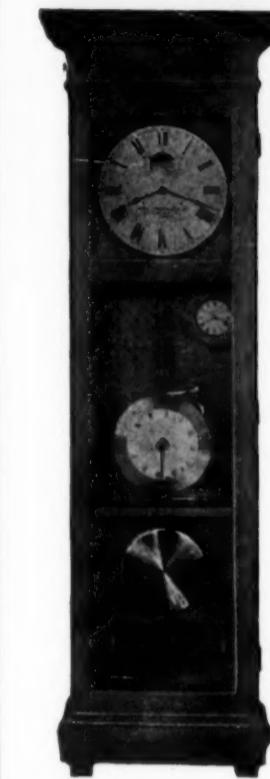
We can supply the needs of the small school as well as the large one, at prices in proportion.

There is no reason why your school should not have a suitable system of this kind.

Some users:

Board of Education, Philadelphia, Pa., 125 installations;
Board of Education, Baltimore, Md., 15 installations;
Board of Education, Butte, Mont., 7 installations;
Board of Education, El Paso, Tex., 5 installations;
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The Walraven Book Cover is a strong, efficient cover. The double corners and back insure a cover that will stand the brunt of use and abuse to which textbooks are subjected.

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A. T. WALRAVEN BOOK COVER COMPANY

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Chicago

EASING THAT DIFFICULT STEP.

(Concluded from Page 36)

Perhaps someone feels that I have wandered away from my theme, "Easing That Difficult Step." I do not think so. Every device that makes high school more democratic, more attractive, more possible, less lonely for the stranger, tends to make that difficult step easier. The more the eyes are attracted by the bright possibilities *beyond* the step, the more the step itself is lost sight of; and the more surely will pupils find it congenial and even make sacrifices in order to remain the four years.

BOARDS OF EDUCATION AND CHAMBERS OF COMMERCE.

(Concluded from Page 45)

a city in the southwest was threatened by local busy-bodies who sought radical innovations, and where the chamber of commerce clarified the atmosphere and established the rule of common sense.

A more recent case in which a chamber of commerce investigated the affairs of a board of education occurred at Indianapolis, Indiana. Here the sledge hammer was wielded against the board of education itself. That body had

been under fire for months when the commerce organization instituted an investigation, went to the bottom of things and established the fact that a vicious clique system was being maintained with the result that the retirement of three board members was recommended. The public approved the service rendered by the commerce body.

As already intimated, it does not often occur that boards of education invite either the support or excite the criticism of local business men's organizations. As a rule, such organizations constitute the backbone of the substantial citizenship capable of exerting a dominant voice in local affairs. It therefore follows that situations may arise in school administrative labors where the support of the commerce body may prove most timely and helpful.

HEAT FOR SCHOOLS FROM A RIVER BED.

(Continued from Page 52)

of forced draft to the ash pit instead of controlling the outlet of gases in the smoke pipe, as was previously the case when natural draft was employed. Also, a much greater capacity can be obtained from any furnace that is prop-

erly equipped. It has been found in a number of buildings where more than one unit has been installed, that less units are required to do the heating, thereby allowing one heater or furnace to be held in reserve to meet emergencies.

While the changes in the plants of the Harrisburg schools have been made primarily with the idea of adapting them to the use of river coal, these furnaces, without any further change, can be used for burning rice, barley or buckwheat coal, as delivered by the mines, or they can be used to burn coal yard screenings.

There are other advantages in the use of river coal, in that it can be purchased direct from the dredgemen, without passing through the hands of brokers, dealers, etc. It is delivered clean, can be handled without breaking up, and can be stored in bunkers to any depth without deterioration and without fear of spontaneous combustion. It is customary in Harrisburg to store enough coal in the bunkers in the early spring for a full year's supply. This makes the coal supply for the Harrisburg schools independent of agreements between operators, brokers and dealers, coal strikes, freight congestion, etc. At this time, when schools all over the country, and other users of coal, are facing a shut down or interruption due to coal shortage, the schools of Harrisburg are enjoying an abundance of heat at a small fraction of the previous cost and with no anxiety in regard to supply.

The equipment for converting the boiler and furnaces of the Harrisburg schools was designed and installed and is being operated under the supervision of Selig & Wilson, Engineers, Harrisburg, Pa. American Sirocco blowers, direct connected to motors, were selected for furnishing forced draft.



A RIVER COAL "PUSHER" ON THE SUSQUEHANNA AT HARRISBURG, PA.

QUALITY, UTILITY, CONVENIENCE AND ECONOMY

BLAIR'S KEYSTONE TABLETS

If we can call attention of buyers to the fact that we made tablets in 1879; That their good qualities of honest material and fine workmanship, plus reasonable price selling methods, have kept them at "the top of the trade" from that time on; That we still manufacture, guarantee the quality, and sell thru the trade, the most complete School Series of Writing and Pencil Tablets, Note and Composition Books, "Loose-Leaf" Binders and Fillers, Typewriter Tablets and Papers, and Printed Heading and Blank Forms, with special rulings; Then this advertisement has fulfilled its purpose. Catalogs and detailed information at your service.

Yours for good tablets

J. C. BLAIR COMPANY

Manufacturing Stationers Huntingdon, Penna.

STRAINING TAX SOURCES.

(Concluded from Page 54)

belongs to that fraction of the constituency which reflects an intelligent public opinion, and which may reasonably be asked to exercise that common judgment which accepts or rejects expert proposal.

The question of an increased revenue becomes more complex when it is remembered that property values, upon which the bulk of the present tax is exacted, has suffered a decline. The tax authorities of Indiana have recently ascertained that the land values of that state have suffered a depreciation of over a half billion dollars. If this be true then the property depreciation in Illinois will reach the billion dollar mark.

Under the present property tax system it only follows that a decline in land values causes a corresponding reduction in the tax yield. If then present tax sources have been strained to their utmost and the schools demand a more liberal support it also follows that such support must either be secured in a reduction in the cost of the other agencies of government, or a resort to new tax sources.

If new tax sources can be found which will promise a more equitable distribution of the burden, and at the same time render a more liberal yield, then it becomes worth while to direct effort to that end.

If the educators will give some study to the subject of taxation with the thought that the schools must secure a more liberal support they will unquestionably see promise in the acceptance of the income tax principle for state revenue purposes. The state income tax is no longer an experiment. Its utility as a revenue producer is well established.

ANALYSIS OF THE JANITOR'S JOB.

(Concluded from Page 56)

doctor, or members of the clergy. A well-trained janitor is an asset to the community; he is really an efficiency engineer and mechanic about a schoolhouse and is capable of rendering

services which will not only protect the health and happiness of the occupants of the school building, but will effect many economies which will result in a great saving to the school board and the community.

EQUITY IN SCHOOL TAXATION.

(Concluded from Page 63)

operative, a considerably increased revenue from this source will be possible."

In a bulletin issued by the association the following paragraphs appear: "School boards in Pennsylvania have absolute control of school expenditures; and, under the present law, they have practically unlimited freedom in fixing the amount to be raised locally for school purposes. No deviation from this plan should ever be permitted; it is the overshadowing principle of sound fiscal policy. Under the school code of 1911, school districts of the first class (Philadelphia and Pittsburgh) could levy not less than five mills nor more than six mills on every dollar of valuation. In 1919 the limits were changed to six and seven mills, and in 1921 the upper limit was made flexible, to conform to the requirements of the state salary schedule.

"It is an interesting fact that the narrow restrictions imposed on the school tax levy in districts of the first class resulted in a starvation program for the schools, while the city departments waxed fat. In other districts, the schools received more nearly their fair share of the total that taxpayers yielded up for public purposes.

The following table, prepared by the U. S. Bureau of Education, shows the number of cents received by the schools in 1920 out of every dollar of total tax levy in each of the nine cities of the country having more than 500,000 population. Philadelphia stands at the bottom of the list, and Pittsburgh well below the middle. Under the Edmonds Act, Philadelphia has risen to 35.2 cents.

City	Cents
Los Angeles, Calif.	40.1
Buffalo, N. Y.	32.3
New York, N. Y.	31.7
St. Louis, Mo.	30.8
Chicago, Ill.	29.8
Pittsburgh, Pa.	29.8
Boston, Mass.	28.8
San Francisco, Calif.	25.8
Philadelphia, Pa.	23.8

A SCHOOL ADMINISTRATION BUILDING.

(Concluded from Page 67)

First Floor: Reception room and school board meeting room, offices for superintendent of schools, manager, attendance officer, superintendent of buildings and grounds. Large store room for textbooks and supplies of instruction, and fire proof vault for records.

Second Floor: Five small offices for the supervisors of music, physical education, drawing, elementary grades, school nurse; a large auditorium which is used for sectional meetings of teachers and supervisors also used by school committees, teachers' club and high school literary societies.

Plans were made by V. C. Utterback, superintendent of buildings and grounds. The cost, exclusive of site and furnishings, is \$9,640.

CHATS DURING RECESS.

Here is a sign that "thrift" among school children is a fixed fact. In Seattle, Washington a row broke out over the fact that two local banks had a monopoly over the deposits of the school children and that teachers are acting as bank tellers.

"A girl may be one hundred percent efficient in the school but if she is pretty, too, the school board has no show at all when Cupid gets busy" recently remarked President John G. McMarlin of the Butler, Pa., board of education. And then Superintendent John A. Gibson added: "A young school teacher can be too pretty to hold her job."

The manly art has not lost its potency. When Superintendent Bender of a Kansas town fired Principal Tucker of the junior high school the latter refused to stay fired. Then the two entered into fisticuffs. That settled the issue. Tucker now knows that he is fired.

STEGER SONG BOOK

of 111

Favorite Selections

for Community Singing
Home Happiness
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**THE NECESSITY OF TRAINING TEACHERS
IN HEALTH WORK.**

(Continued from Page 49)

Seating problems are better understood because they are often so self evident. Yet how many teachers can tell you off-hand what would be ideal school furniture? They should be instructed to make intelligent analyses of such questions.

Locally we have long ago adopted the principle of individual articles for individual pupils, strictly observed, and yet I wonder if the average teacher is thoroughly conversant with the possibilities of spreading of infection through articles collected and redistributed indiscriminately. A teacher should be able to handle such matters without being told, because they constitute one of the simplest health doctrines. And yet how many of us have traced some mild epidemic of certain disease in a single room to carelessness in such matters?

In strictly medical matters, for example where contagious disease may develop in a room, sooner or later the teacher must learn to recognize its early symptoms and call for advice before damage is done. School inspection systems depend on the teacher after all, because she is most familiar with the child's idiosyncrasies and will detect flushed cheeks which others might consider evidence of health at first glance. This being true, why not give teachers-to-be a definite course in the detection of contagious disease and also in the most suitable means of protecting themselves and their other pupils from it? At least it would have considerable effect on the room attendance and on the teacher's personal safety. If such instruction is not thoroughly given at the normal schools, then it falls upon the school health department to make additional effort to cover this defect.

Knowledge of nutrition work and standards is essential. It is not enough to be able to weigh the pupil, to measure its height and record the same in comparison with the normal. The teacher must know the normal limits of variation and not send a notice to a worried parent that the child is one-half pound underweight, thereby frightening the parent and requiring lengthy explanations by the more highly trained health workers. Yet one or two lectures, given good attention, would have avoided such an unfortunate circumstance and avoided the suspicion of inefficiency otherwise directed at a department always very busy.

Minor skin diseases such as lice, itch, impetigo, and ringworm appear constantly in schoolrooms and always will. The teacher who can recognize and segregate such cases between the visits of nurses and medical inspectors will often avoid further cases. Here again she must know how to protect herself from acquiring the disease.

Lack of understanding of these medical matters leads to fear on the part of the instructor. She does not understand clearly how to avoid trouble for herself and should not be blamed if she does not handle such situations well.

Most of this applies to younger teachers it is true; for the older teachers, through unfortunate experiences of their own or of their friends have learned moderately suitable care. By the time they are promoted to be principals many have acquired a valuable knowledge of contagious disease and other school health problems. Yet in many principals the fear still persists and shows itself in added work placed upon the inspection system.

It is evident that if suitable teaching is given, the inspection system can be handled with a much smaller personnel. The teacher will

handle many problems almost automatically through correct knowledge of the needs of the situation, and will know when to call for assistance and when no need for this exists. A serious wastage will be avoided and at no real addition to the teachers' burdens.

From this knowledge the teacher should be able to analyze the various health teaching schemes and determine their value to her particular pupils. Hence she will be better able to fit her health courses to the needs of her children, and she will become a valued member of the school inspection force ex officio.

The remedy then is first more thorough health instruction in the normal schools, with particular emphasis on practical problems and their solution. For the teachers already in a school system the best remedy is the provision of a voluntary and brief but comprehensive course in this work, perhaps one hour a week for a definite period, with talks and discussions or at least directed reading on the subject. Such persons when instructed, should be used as a nucleus around which to build the minor health work in the schools. This is especially important in a large school system where it is neither practical to assemble all the teachers in one large group for instruction nor yet to teach many small groups except by this method because of the time consumed by the members of the health department force. To the member of the school board who believes in economical management, this may offer considerable solution to the growing needs of health work. To the normal school it may suggest the need of further effort in this line of work to meet a growing demand. In the training emphasis must be placed upon this as attractive and most worth while, otherwise it is a question whether indifference or ignorance is more difficult to compensate.

Secretarial Sidelights

By a School Board Secretary.

The secretary of a school board occupies about the same position in the community as does the shock absorber on a Ford car. He is the connecting link between a rattle brained public and a hard-headed board. He it is who absorbs the shock of innumerable complaints and irons them out before they can reach the ears of the board. Were it not for the secretary the members of the board would be "run ragged" by parents and politicians who feel it their duty to help run the schools.

The secretary, who also acts as purchasing agent, has added problems in keeping local tradesmen contented, for there is always the merchant who feels he is entitled to the school business because he is a "taxpayer."

Along in 1917, I took a leave of absence from my office "for the term of the war," joined the marine corps and went to France—and a lot of other places. That hasn't a thing to do with this story except that in my absence a great many changes took place in my home town that would not have taken place under normal conditions—new faces had appeared in all lines of activity. The trades and retail stores were controlled by men who had never been in business before. Some were skilled; others were tradesmen in name only.

Shortly after resuming my duties I was asked to have one of the school pianos tuned. Having been out of touch with conditions for so long I had to ask who was the best piano tuner in the city. "There isn't any best one," I was informed. "They are all gone, except a Mr. Dumkoph, and I don't know anything about him except that he claims to be a tuner."

I looked up this gentleman in the directory and found him listed as a stenographer. However, I called him up and was assured that he was really a piano tuner—that he had only turned to stenography while he was getting established as a piano man. Later in the day he came up to see me.

When a man calls a stranger on the telephone he usually forms some sort of impression as to the looks of the person at the other end of the line. In this case I was a little surprised when he walked into my office. He was a man of about 35, who bore all the ear marks of a radical Russian bolshevik. He assured me at once that he was a piano tuner and a good one. He took almost half an hour of my time in telling me what an extraordinary tuner he was. In fact, during this time, he tried to make it plain to me that he was perhaps the world's greatest piano tuner. He was really the peer of his profession. There had probably been great piano tuners before, but there were none left—they were all extinct, and he was the only one left that amounted to anything.

No doubt he would have been reciting his virtues yet had I not headed him off and set him to work.

The piano in question was a Packard grand, and it is a well-known fact among school people that a grand piano, if left open in a schoolroom, will accumulate a great variety of articles besides dust.

It was an hour or so later that I happened around where Mr. Dumkoph was working, and Peary himself could have shown no greater surprise when he discovered the north pole than did my bolshevik tuner when he showed me his discovery of some pieces of chalk, a few rubber bands and a paper clip that he had taken from the insides of this grand piano. "See, see," he cried, "is it no wonder that your piano was out of tune? It is an outrage that our children are not better taught than to throw chalk into the piano. You, Mr. Secretary, should see that

this is not done. I am a taxpayer, and I demand that you have such practices stopped. I am a taxpayer I say—I pay taxes for the support of this school, and is this the way it is run?"—and he waved both arms to give emphasis to his outburst. After getting all that off his chest he seemed to feel better and settled down to his tuning job.

I did not hear from Dumkoph again for nearly a year, when one day he walked into my office with a proposition for tuning and repairing the pianos of all the schools in the city.

"What's your proposition?" I asked him.

"Mr. Secretary," said he, as he gesticulated with his right arm, "I will tune all of your pianos for \$3.50 each and charge you a dollar an hour for any repair work I might do on them."

"Your tuning price is all right," I answered, "but I don't believe I care to sign a contract for repairing at the rate of a dollar an hour." To myself I said, "Sign a contract with a chap with a face like that—well, not while I'm in my right mind. I wouldn't let him fix my wheelbarrow, let alone repair a piano."

Exit Mr. Dumkoph for a few months.

It was during the summer—some eight or nine months after my experience with Mr. Dumkoph that another piano man came into my office. "I am Mr. Wells," he said. "My business is tuning, overhauling, and repairing pianos. I have had 25 years' experience in this business and believe I am qualified to handle any repair work you might have. I used to be in the piano business here, but moved out to Portland a few years ago. If things go well I intend to make this my home again. To substantiate my claims as a piano man I have here recommendations from a number of your most prominent musicians—most of whom I am sure you know." And he showed me some exceptionally fine letters of recommendation from several people with whom I was well acquainted.

"I understand," he continued, "that you have some pianos in your schools that have been in use for over thirty years and that have never been overhauled. Well, I will overhaul, repair and tune these pianos so they will sound as good as new."

"That sounds all right, Mr. Wells, but how about the cost?"

"I don't know; I'll be glad to look them all over for you and give you a flat price for the entire job."

"All right, look them over, give me a detailed statement of what you will do and then give me your best price."

In a day or two he had his figures and we came to an agreement satisfactory to both of us. I claim no technical knowledge whatever of pianos, so I inserted into our contract a clause to the effect that the entire job would have to pass the inspection of our music supervisor or of any one else I might name. Mr. Wells agreed to this without hesitation. In fact, he welcomed the idea.

The entire job was finished in about three weeks and Mr. Wells came in to advise me of the fact and to ask who was going to inspect the work. He said, "My car is at your disposal, and I'll be glad to take your whole music department along if you wish." And that is just about what he did. He took the supervisor and two of her assistants along. They returned with a most enthusiastic report. The work was much better than they ever dreamed it could be. They were bubbling over with praise for Mr. Wells and his work.

"Well, that's fine," thought I, and put the transaction down as a good job completed. But wait. It was completed all right, but I found

in a few days that I was to hear more about it. I had almost forgotten the peerless Dumkoph.

He came tearing into my office one day with the fire of battle in his eye and without removing his hat or saying good morning, screamed, as he waved both arms: "It is an outrage! It is an outrage, I say! You have insulted me! You have ruined my good reputation! You have trampled my good name in the dust! You, Mr. Secretary, had no right to do such a thing."

"Hold on a minute," I broke in; "what in the dickens are you talking about? Calm down and explain yourself. I haven't, to my knowledge, done anything to insult you or ruin your good reputation, and I wasn't aware that I had been kicking your name around in the dust. What are you driving at anyway?"

"What am I driving at? You, Mr. Secretary, have ruined my business. It is a crime! It is an outrage! You have hired a man from another city to come in and repair your pianos—and he charged you more—more, I say, than I would have done it for, and what is he but a common bungler? You have wasted public money in hiring this impostor. Why, sir, did you not hire me to do this work? I am a taxpayer. I pay taxes to help run this school system. Why, Mr. Secretary, I even help to pay your salary. And this is the treatment I get in return. I object! I emphatically protest against this treatment. There are none better than I. I will match my skill against any tuner you might procure. I stand in a class by myself."

"What makes you think you are a better piano man than Mr. Wells?" I broke in. "He has been in the business for 25 years."

"Twenty-five years!" roared Dumkoph. "I don't care if he has tuned for 50 years. So much the worse for him. If he has been at it for so long he probably does not know the latest developments in this art. I have at my finger tips all the secrets of my profession, right down to the minute. I have read books that tell me every thing that should be known. I have read it all in books, I say. I am a student of my art."

"Well, that's all very nice, Mr. Dumkoph. Perhaps you are just as good a piano man as you say, but why prolong this discussion? I haven't any pianos to tune. They have all been overhauled and tuned to the perfect satisfaction of our music supervisors. They are all professionals in their line and their recommendation bears considerable weight with me."

"Professional musicians! Bah! What do they know about pianos? How can they tell when an instrument is in tune? They have never studied the secrets of piano tuning. Only a professional tuner can tell when a piano is in tune. I am not here seeking work. I am here to protest against your scandalous misuse of public funds in hiring this Mr. Wells from another city, while I, a taxpayer, am not given consideration. I'm a taxpayer, I say. I live here, and I take your action as a personal affront. I feel that I have been grossly insulted. You, Mr. Secretary, are to blame for this. I shall not forget. I shall go out on the street and discredit you in every way in my power. I will yet avenge this insult."

"You smile! You laugh! I want you to know this is no laughing matter. To me it is most serious. I will remember this as an added insult. I will not forget."

It has been several months since I saw Mr. Dumkoph, but every few days some good friend comes to me with some wild tale the little bolshevik has been peddling regarding the secretary of the school board. It has now reached the point where the mere mention of the name of Dumkoph is the signal for everyone to laugh.

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Paper, octavo, 10 pages and measuring scale. Price 60 cents. Johns Hopkins Press, Baltimore, Md.

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The Building Program. Trenton, N. J. Wm. J. Bickett, Supt. Issued in November, 1922, by the Trenton board of education. Preparatory to the adoption of the building program, the board made comprehensive studies of the various problems involved. These studies included such phases as the objections of the school system, the proper organization of the system to accomplish the objectives, the extent to which the present facilities meet the educational needs, the location and number of schools, the condition of the building plant, and the ability of the city to finance the proposed building program. The present pamphlet contains a summary of the studies made for the benefit of the citizen and school patron who desire to know the status of the program, and its relation to the development of the educational opportunities of the city.

The Use of Intelligence Tests as a Basis of School Organization and Instruction. By Charles W. Odell. Price, \$0.50. Bulletin No. 12, 1922, University of Illinois, Urbana. This pamphlet presents the results of Dr. Odell's investigation extending over nearly two years, in which he studied with unusual care certain of the questions involved in the proposal that the schools be reorganized on the basis of results yielded by general intelligence tests. The pamphlet discusses such phases as the plan and conduct of the experiment, the scope of the study, the collection of data, the principles of promotion and classification used in the placement of pupils, the chronological agegrade placement, the mental age and school placement in experimental and control schools, the intelligence quotients as the best basis of comparing the mentality of pupils, the teachers' estimates of capacity, average school marks and estimates of health, the efficiency of the schools as measured by rates of progress of pupils, promotion and classification of pupils, the placement of new entrants received by the experimental schools, the efficiency of the schools as measured by achievements of the pupils, studies of the brighter and duller pupils as a means of determining the effect of the experimental plan of organization upon the efficiency of instruction, and the conclusions to be drawn from these results and their application to the school systems in general.



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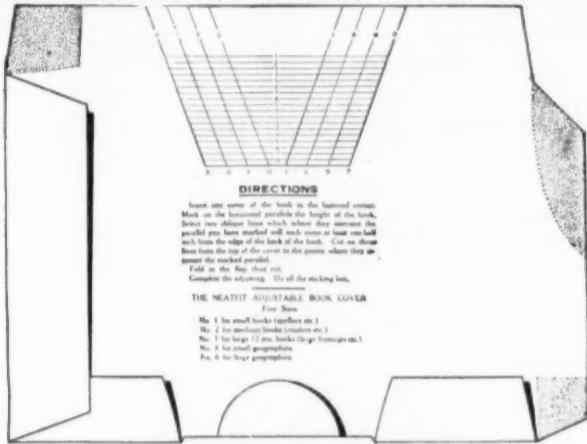
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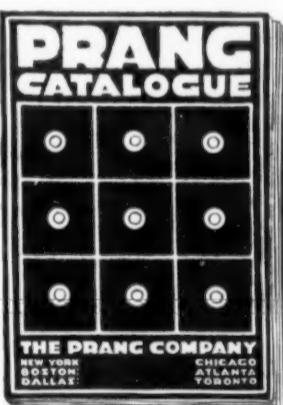
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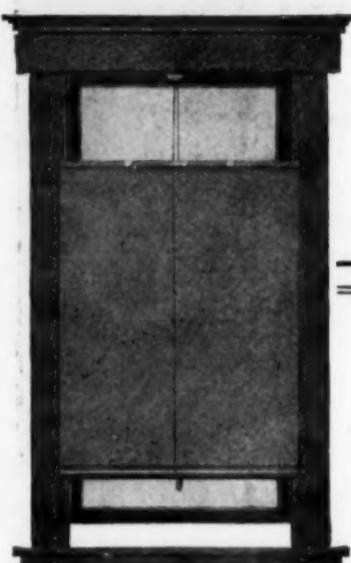
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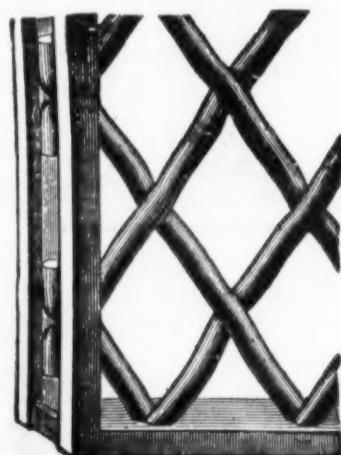
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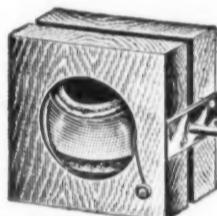
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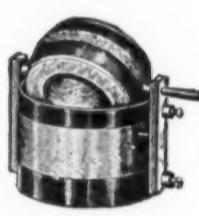
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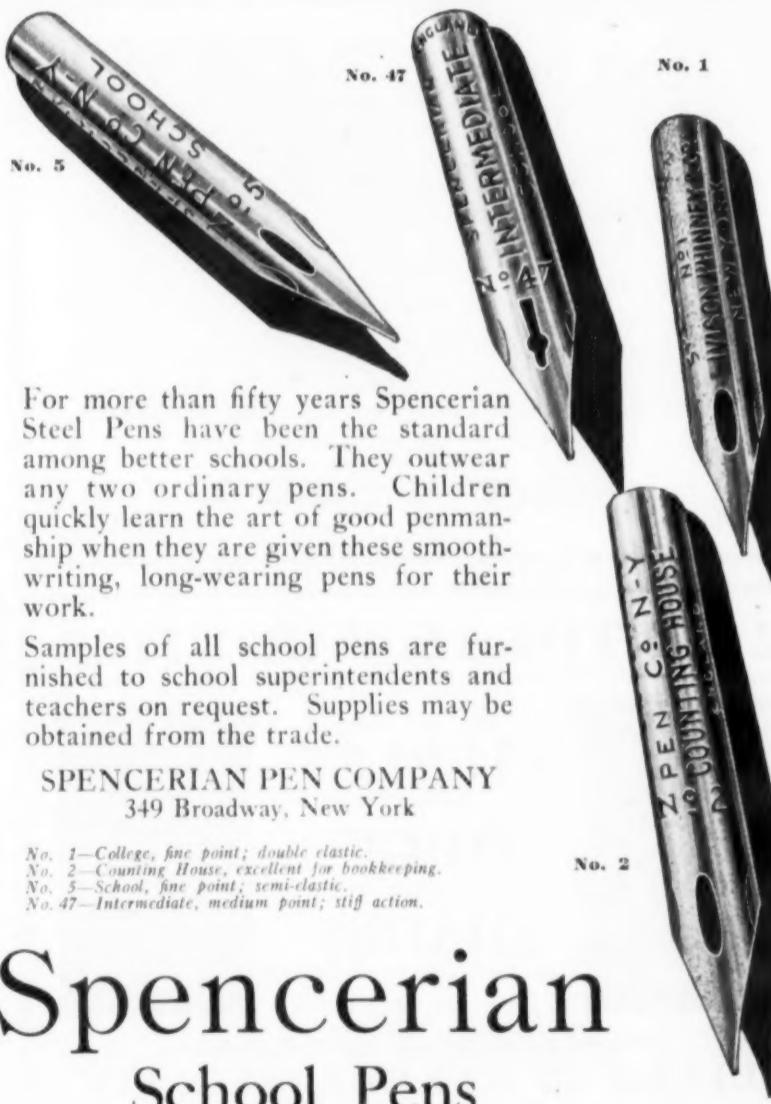
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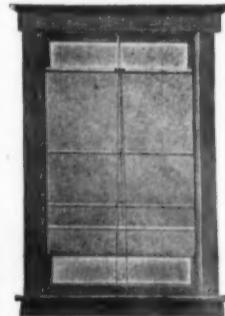
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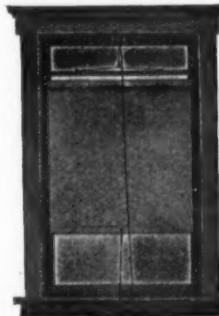
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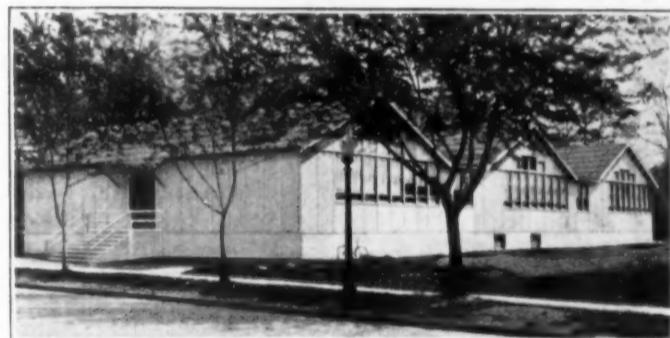
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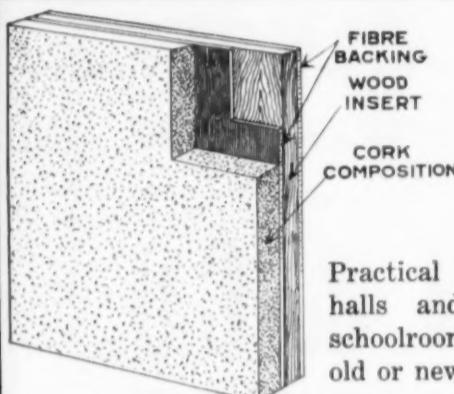
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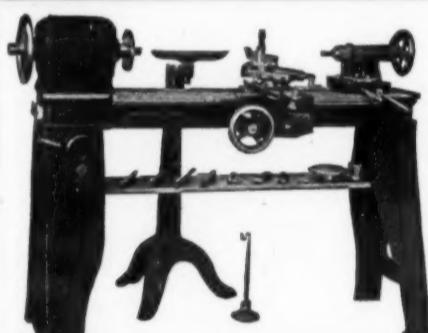


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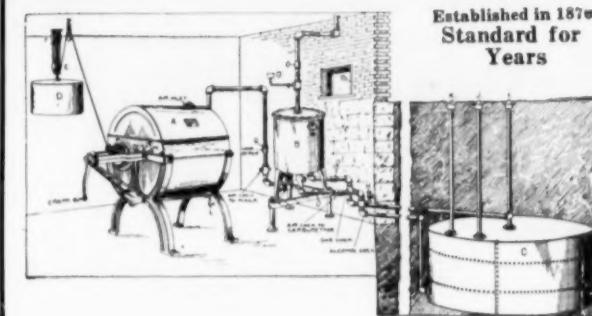
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Use The Norton
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PERFECT PROJECTOR
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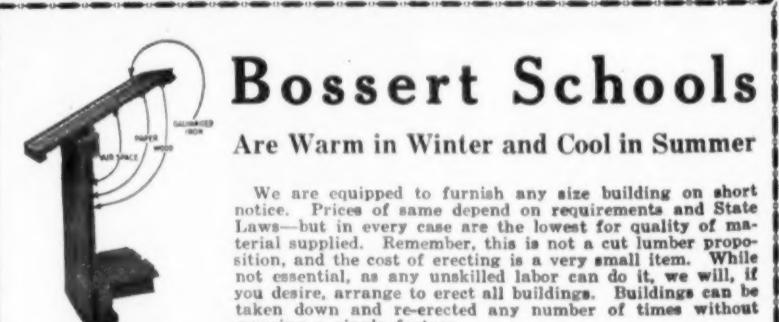
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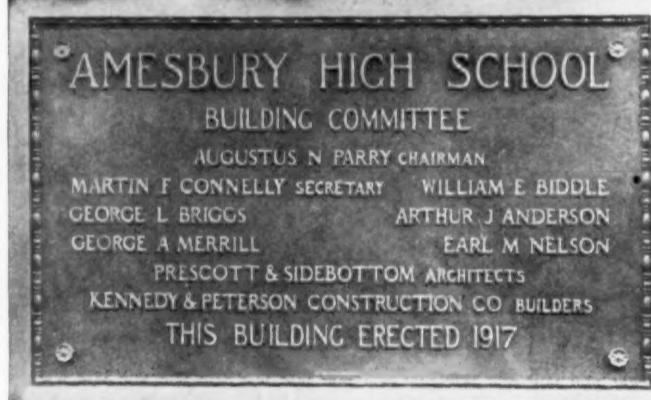
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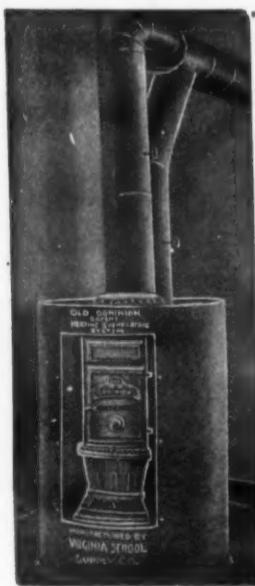
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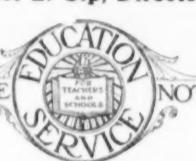
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Character, Personality, Teaching Power and Service. By advertising more widely than any other Agency, and by visiting State and District meetings, schools and colleges, from Dakota and Minnesota to Texas and Oklahoma, we have built up the largest SELECT LIST of LIVE teachers ever assembled. Our tenth year of recommending only when asked to do so by employers. Owing to our professional standards most of the Higher Institutions as well as the best Secondary schools in forty-four States and three foreign countries used our service the past season. Fifteen hundred square feet of office space, with every known equipment for doing efficient work, INCLUDING A FINDEX BUILT TO ORDER, enables us to fill vacancies from Kindergarten to University with teachers who have been tested, investigated, and, in many cases personally interviewed by our representatives direct.

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A SUPERIOR AGENCY FOR SUPERIOR PEOPLE. WE REGISTER ONLY
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DON'T LOCK THEM IN!

*Provide an Everlasting Safeguard for the Lives of Your Children
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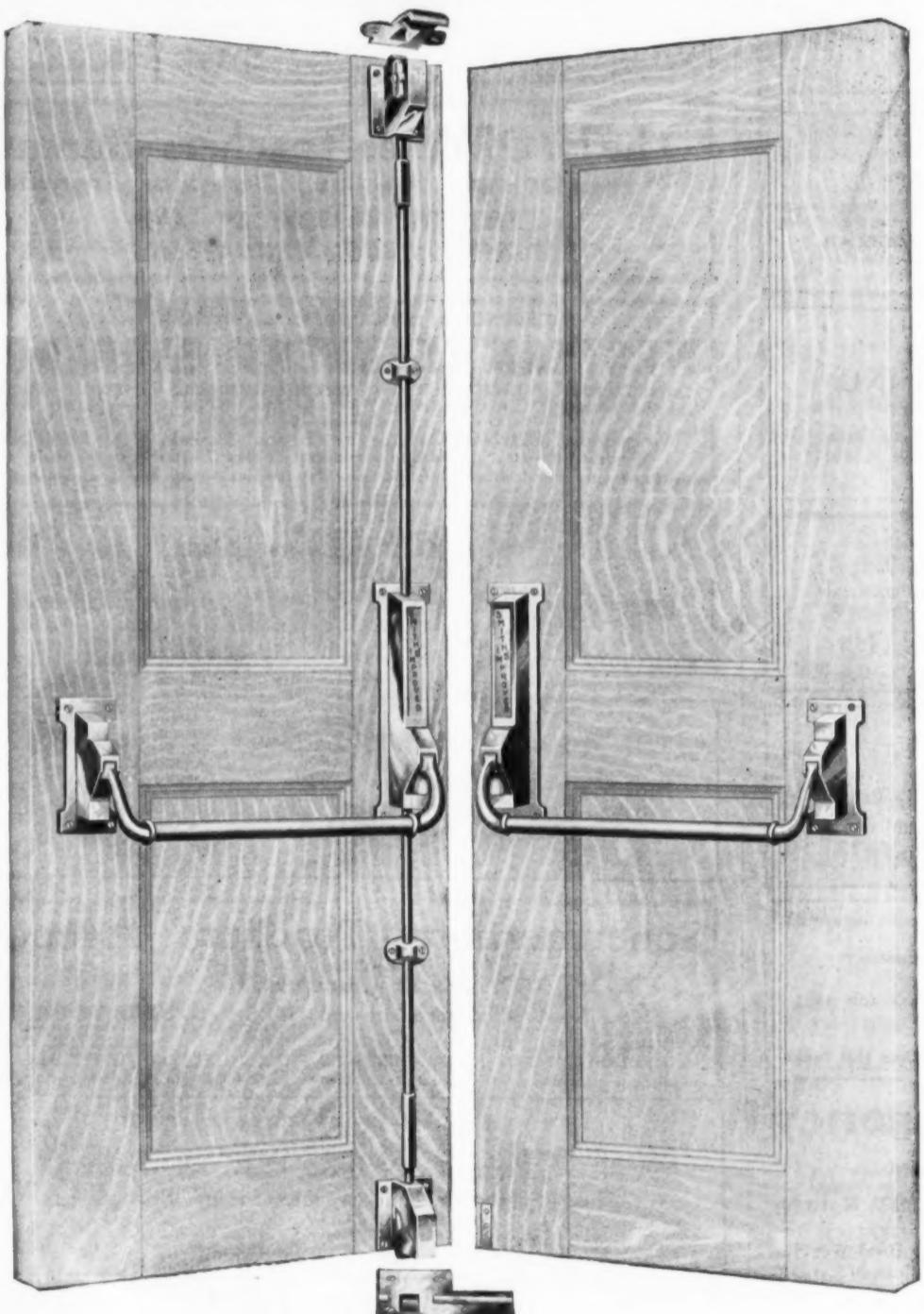


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Built on Everlasting Principles for Everlasting Service

EXIT LOCKS OF EVERY TYPE
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The PRINCIPLE is the thing.

If you want to be FIRST, FIRST you want to be RIGHT.

The Fundamental Principles embodied in Smith's Improved GRAVITY Exit Locks are GRAVITY Action—NO SPRINGS.

The Fundamental REQUIREMENTS of an Exit Lock are (1) POSITIVE OPERATION and (2) EASE OF OPERATION.

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The accompanying Cut shows attractive Trim. But we urge you to look beneath the surface and into the HEART of the GRAVITY Lock. Write for our new Catalog No. 20. The Phantom Views on Pages 2 and 3 will be a revelation to you.

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THE LOCK SMITH'S OF SUPERIOR EXIT DEVICES

School Goods Directory

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

AIR CONDITIONING APPARATUS

American Blower Company
Buckeye Blower Company
Nelson Corporation, The Herman

AIR WASHERS

American Blower Company
ASH HOISTS

ATHLETIC GOODS

Chicago Gymnasium Equipment Co.

AUDITORIUM SEATING

American Seating Co.
Empire Seating Co.

BELLS

Foot Foundry Co., J. B.
BLACKBOARDS—COMPOSITION

Beckley-Cardy Co.
N. Y. Silicate Book Slate Co.

BLACKBOARD CLEANER

Mohawk State Machine & Mfg. Co.
BLACKBOARD-SLATE

Keenan Structural Slate Co.
Natural State Blackboard Co.

BLEACHERS

Leavitt Mfg. Company
BOILERS

Kewanee Boiler Company

BOOK CASES

Globe Book Company
BOOK COVERS

Holiday Patent Book Cover Co.

BOOK PUBLISHERS

American Book Company
American Viewpoint Society

BUILDING MATERIALS

International Casement Co., Inc.
Detroit Steel Products Company

BULLETIN BOARDS

Paddock Cork Company
CAFETERIA EQUIPMENT

Coe Manufacturing Company
PICK & COMPANY, Albert

CHARTS

Nystrom & Co., A. J.
Weber Costello Company

CHALK TROUGHS

Dulfield Mfg. Company
CLOCKS—PROGRAM

International Time Recording Company

CLOUDS

Lands End & Mfg. Co.
Metropolitan Supply Company

CRAYON

American Crayon Co.
Binney & Smith

DEAFENING QUILT

Cabot, Inc., Samuel
DIPLOMAS

Metropolitan Supply Company
Weld Mfg. Co., W. M.

DISHWASHERS

Colt's Patent Fire Arms Mfg. Co.

DISINFECTANTS

Palmer Company, The
Robertson Products Co., Theo. B.

DOMESTIC SCIENCE EQUIPMENT

A. B. Stove Company
Christianansen, C.

DRAFTING ROOM FURNITURE

Christianansen, C.
Economy Drawing Table & Mfg. Co.

DRINKING FOUNTAINS

Kewauna Mfg. Company
Peterson & Co., Leonard

DRAWING MATERIALS

Pick & Co., Albert
Sheldon & Co., E. H.

DRINKING STRAWS

Derco & Raynolds
Manufacturing Company

ELECTRICAL EQUIPMENT

American Wiremold Co.

ELIMINATORS

Murdock Mfg. & Supply Co., The
Nelson Mfg. Company, N. O.

ENCLAVES

Bundt-Spence Mfg. Company
Taylor Company, Hasley W.

ENCLAVES

Wolff Manufacturing Co.

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American Wiremold Co.

AIR CONDITIONING APPARATUS

American Wiremold Co.

ELECTRIC WIRING

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Palmer Company, The

ERASER CLEANERS

Rowles Company, E. W. A.

ERASER CLEANERS

Weber Costello Co.

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Lynn Company, James

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Weber Costello Company

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Gillies & Geoghegan, The

ERASER CLEANERS

Chicago Gymnasium Equipment Co.

ERASER CLEANERS

Auditorium Seating Co.

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Empire Seating Co.

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Heywood Bros. & Wakefield Co.

ERASER CLEANERS

Kundt Company, Theodor

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Peabody School Furniture Co.

ERASER CLEANERS

Peter & Volz Co.

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Bell Foundry Co., J. B.

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BLACKBOARDS—COMPOSITION

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Rowles Co., E. W. A.

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Standard Blackboard Company

ERASER CLEANERS

Weber Costello Co.

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BLACKBOARD CLEANER

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Natural State Blackboard Co.

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BLEACHERS

Leavitt Mfg. Company

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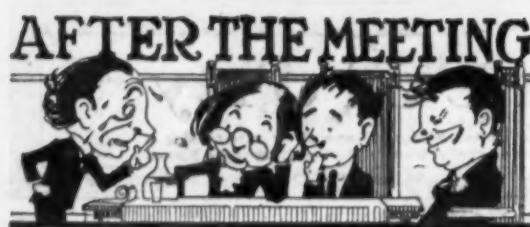
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School Boy "Howlers."

A joyous collection of school boy mistakes gathered by English teachers is printed in the London Times. The Latin classes are always fruitful in howlers.

De mortuis nil nisi bonum produces on this occasion as an English version "There's nothing but bones in the dead," and Ne plus ultra, "There's nothing beyond Ulster." Tertium quid "is a legal term meaning six shillings and eightpence."

There are some excellent examples of miscellaneous "information." "A grass widow," we are told, "is the wife of a dead vegetarian." The author of "Britain has a temporary climate" was evidently a youthful cynic, and one suspects the same hand in the definition of "ambiguity" as "telling the truth when you don't mean to." Other specimens are:

Palsy is a kind of new writer's dance.

Letters in sloping print are hysterics.

Etiquette is the noise you make when you sneeze.

In the departments of history, geography, grammar and literature the following occur:

The capital of Norway is Christianity.

No one has yet succeeded in edifying the dark lady of the sonnets.

The French Revolution was won violently, not by "freedom slowly broadening down from President to President," as Tennyson wrote.

Winnie was caught whispering in school to the girl next to her.

"What were you saying when I caught you whispering?" asked the teacher.

The culprit blushed, then looked up, smiling, and said:

"I was only telling her how nice you looked in your new dress."

"Well, that, of course, it—it doesn't—the spelling class will stand up."

Knew What a Lake Was.

After asking the usual questions about the health of the family, the visiting priest, an Irish paper says, began to question one of the little girls about her work at school. Finally he got to geography.

"Now, tell me, dear, what is a lake?" he asked.

The child knitted her brows, then said eagerly: "Plaze, yer riverince, it's a kittle wid a hole in it."—Hartford Times.

Anything Is Possible.

A little boy in a city school refused to sew, thinking it beneath the dignity of a ten-year-old man.



TRYING THE GRADUATION PAPER ON THE DOG.—LIFE.

"George Washington sewed," said the principal, taking it for granted that a soldier must; "and do you consider yourself better than George Washington?"

"I don't know; time will tell," said the boy seriously.—Good Hardware.

Dumb Luck.

Professor—What is ordinarily used as a conductor of electricity?

Student (all at sea)—Why-er-

Professor—Wire. Correct! Now tell me, what is the unit of electric power?

Student—The what, sir?

Professor—Exactly, the watt. Very good; that will do.



New Blackboard Eraser Cleaner. "Little Giant" is the name of a new blackboard eraser cleaner being manufactured by James Lynn Company, 14 E. Jackson Blvd., Chicago, Ill. This new device embodies the vacuum or suction principle quickly and effectively removing all the chalk dust from the erasers. It is operated by General Electric Universal Motor adaptable to all electric currents. The "Little Giant" Eraser Cleaner will be sent to schools on a fifteen day trial period. For full details write the above company.

Colormix. A new colored concrete hardener manufactured by The Master Builders Company, Cleveland, Ohio. This new product is fully described in a booklet issued by this company under the title "The Book of Master Built Floors." Colormix is shown in the four colors available, namely, Tile Red, Battleship Gray, Linoleum Brown and Nile Green. Complete specifications are included. The booklet is 8x11 inches containing twelve pages. Copies will be sent to school officials and architects on request.

New Victor Records The Victor Talking Machine Company has just issued a new educational record consisting of cradle songs of many nations sung by Miss Edna Brown. The selection includes eight European and Asiatic lullabies.

—Slate Plumbing Fixtures and Products is the title of a valuable cloth bound book distributed by the Structural Slate Company, Pen Argyl, Pa. The book contains complete specifications and measured details for the construction and installation of various types of toilet room and bath room enclosures and for a wide variety of standard laundry tubs, sinks, lavatory tops, sewage disposal tanks and blackboards. The booklet will be found useful by architects and school authorities in working out specifications for school building installation. The book measures 6"x9" and contains 112 pages. Copies will be sent to school officials and to architects on request.

Movable Desk Superiority. A strong argument for movable chair desks is made in this handsomely printed catalog of the Detroit School Equipment Company. The catalog suggests not only the pedagogical arguments for movable desks, but also illustrates the rigid design, strong construction, and handsome finish of the Detroit Standard and Art Movable desks. Copies will be sent on request to school authorities.

Circle A Products. The Circle A Products Corporation, Champaign, Ill. has just published a new descriptive catalog of its one, two, three and four-room portable school buildings. The circular contains not only complete illustrations and plans, but also full specifications and details of the unique construction adopted successfully in all Circle A school buildings. The circular will be sent to all interested school authorities on request.

New Oliver Catalog The Oliver Machinery Company has just issued a new bulletin in which the catalog presents portable woodworking machinery. The Oliver line now includes a saw bench, a band saw, a planer and jointer, a disk sander, a spindle sander, a wood trimmer and several grinders all of the portable type. Copies of the catalog may be had by requesting bulletin No. 7.

A New Catalog. Schaar & Co. have just published their new catalog No. 5 including all

of their productions for physics, chemistry, biology and electrical laboratories. A copy will be sent to any school authority on request to the Chicago office of the firm.

Togan Schools. The Togan-Stiles Company, Grand Rapids, Michigan, has just issued a new illustrated catalog of the Togan factory made portable school building. The catalog includes not only several types of standard one-room schools, but also several types of two-room units, which are complete in every necessary heating and sanitary facility and which include especially ample cloak room space and educational supply storage space. The present catalog is note-worthy for its complete specifications and detail drawings and for the numerous illustrations of typical Togan-Stiles installations. The catalog will be sent on request to school authorities.

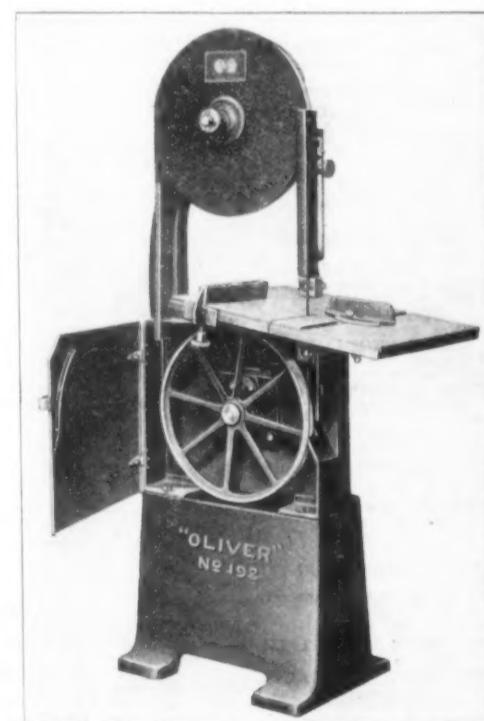
Gold Medal for American Playground Equipment. The Brazilian Centennial Exposition recently paid the highest tribute to an American product. In competition with playground equipment presented by the several countries of the world the Hill-Standard Company of Anderson, Indiana, was awarded the gold medal.

Owing to the favorable climatic conditions, the South Americans are essentially an outdoor people. Hence, the recreational activities of the youth receive considerable attention. Playground equipment is appreciated.

"We are indeed gratified at the distinction accorded us" said Mr. Hugh Hill, President of the Hill-Standard Company, when he received a cablegram from the exposition authorities to the effect that his company's product was a world winner. "It is a tribute to American ingenuity and enterprise as well as a recognition of our efforts to provide serviceable playground equipment."

School Cafeterias—Albert Pick & Co., 208 W. Randolph St., Chicago, Ill., have just issued a catalog of the school cafeteria. Detailed information is included covering the cafeteria facilities necessary in proportion to the school enrollment, as well as the various kinds of equipment essential to the successful operation of the school cafeteria. Illustrations of actual installations in schools throughout the country are included, together with standardized cafeteria outfits for schools of every type and size, including floor plans. The booklet is 6x9 inches and contains 31 pages. Copies will be furnished on request to school officials and schoolhouse architects.

Electric Time and Program Clock Systems—The Landis Engineering & Mfg. Co., Waynesboro, Pa., have issued a catalog describing their Electric Time and Program Clock Systems. Illustrations of the different styles of master and secondary clocks are shown, together with the details of construction and operation. Complete specifications are included. The booklet is 4x9 1/4 inches, containing 48 pages. Copies will be sent to interested school officials on request.

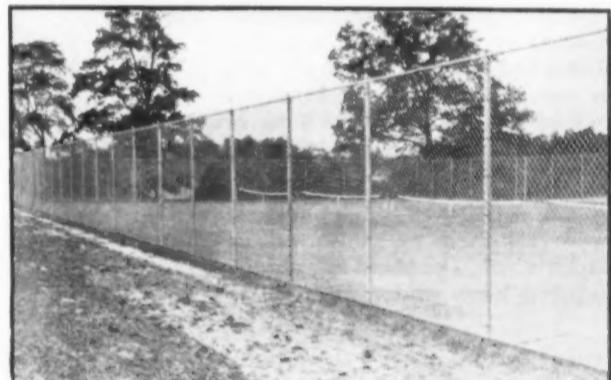


THE NEW OLIVER BAND SAW FOR SCHOOL SHOPS.

Unfenced Grounds Breed Dangers!



Anchor Weld Railing, Entrance Gate and Chain Link Boundary Fence at Columbian Play-ground, East Orange, N. J.



Anchor Post Chain Link Tennis Court Enclosure, Installed at Mill Creek Park, Youngstown, Ohio.



Anchor Post Electric Weld Railing and Gate at Hartford High School, Hartford, Conn.

Anchor Post Fences Spell Safety

DO your children, too, romp and play in safety? Or are their little lives exposed to the ruthless dangers of an unfenced playground?

Safe within the protecting arms of an Anchor Post Fence, they can gambol to their hearts' content — unfailingly protected against speeding motorists, snapping dogs, and neighborhood bullies.

Anchor Post Playground Fences provide ideal child protection. They are strong, impregnable, unclimbable—yet they afford no ob-

struction to cooling breezes and invigorating sunshine. **Galvanized throughout** by the old-fashioned, thorough hot-dip-spelter method, they defy the elements and give many, many years of service.

The nearest Anchor Post office or sales agent will gladly send you our School Fence Bulletin and place at your disposal our many years of experience in building and erecting fences and railings for playgrounds, school buildings, tennis courts, etc. Write, phone, or wire.

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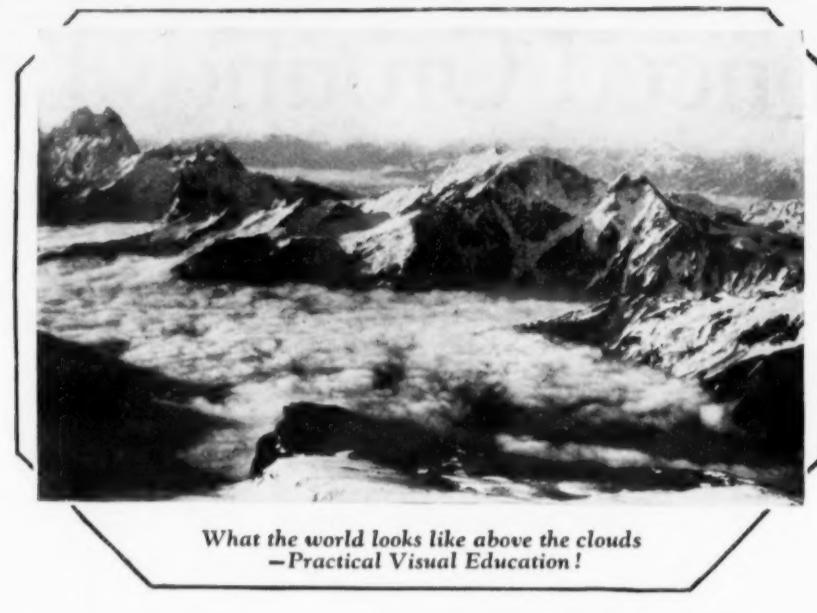
FIRM — BECAUSE THEY ARE ANCHORED

Anchor Post Fences

PERMANENT — BECAUSE THEY ARE GALVANIZED



No. 2 of
a series of talks on
the Educational Value of
Compton's Pictured Encyclopedia



COMPTON'S PICTURED ENCYCLOPEDIA *Enriches Education*

EVERY mind responds to a picture. No part of the modern educational program is more desirable than Visual Education. Nothing could be more effective in interesting pupils in education than the right picture at the right psychological moment. And yet no part of the modern programme has been actually used so little—no part has seemed so remote from solution as Visual Education.

In Compton's Pictured Encyclopedia, every idea that can best be grasped and retained by the child through the medium of his eyes is visualized and expressed in a picture. And below every picture a specially written explanation develops the full significance of the illustration. This is what a prominent educator meant when he said: "I have here seen Visual Education for the first time."

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Compton's Pictured Encyclopedia—an entirely new, alphabetically arranged survey of the whole field of knowledge, complete in eight volumes—was planned and built by men who are devoting their lives to education. As a supplementary text to enrich the teaching of a specific subject, as the source of abundant and immediately accessible material for the Problem-project, as the embodiment of practical Visual Education, Compton's Pictured Encyclopedia—the ripened fruit of their experience—is the greatest tool ever placed in the hands of the teacher.

If you are a school executive, interested in more efficient education, write to us under your letterhead and we will send you, without obligation, representative articles from Compton's Pictured Encyclopedia. Please address Mr. Jones, Manager, School Service Department.



When hungry, the chameleon "lies low" with its color adjusted to its surroundings. When an insect passes by, the chameleon shoots out its long tongue, striking its prey with the skill of a trained marksman. The insect is glued to the tip of the sticky tongue and is drawn back and swallowed. A motion-picture camera caught the views above.

3 of a progressive series of
6 photographs reduced from
full page length

F. E. Compton & Company
58 East Washington Street, Chicago

WRITE For It!

We have printed this illustrated bulletin for distribution to School Architects, Superintendents, Members of Boards and others interested in improved floors for school buildings.

It tells about Marbleloid, the *permanent*, fire-proof, sanitary and economical flooring for every room of any school—from the class room to the dormitories. It will be attractive, will not need attention or upkeep, and will last so long that the cost per year is less than that of any other type of flooring.

Let us send you illustrated folder, together with sample, list of schools using it, etc., or



MARBLEOID the Modern Flooring for Schools

The Marbleloid Company
461 Eighth Avenue at 34th St.
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*if you have a flooring problem
now fill in and mail the coupon
below.*

THE MARBLEOID COMPANY, 465 Eighth Ave., New York

USE
THIS
COUPON

THE MARBLEOID COMPANY, New York City

Without obligating myself in any way please submit tentative estimates on the cost of your product installed complete for our building.....; below are the approximate areas involved.

Floor..... Sq. Ft. Sanitary Base..... Lineal Ft. Wainscot..... Sq. Ft.
I have checked below the floor troubles we now have.

Our floors are

<input type="checkbox"/> New Concrete	<input type="checkbox"/> Cracking	<input type="checkbox"/> Cold	<input type="checkbox"/> Slippery
<input type="checkbox"/> Cement Finish	<input type="checkbox"/> Dusting	<input type="checkbox"/> Splintering	<input type="checkbox"/> Unsanitary
<input type="checkbox"/> Wood	<input type="checkbox"/> Noisy	<input type="checkbox"/> Rough	<input type="checkbox"/> Rotting

Name.....

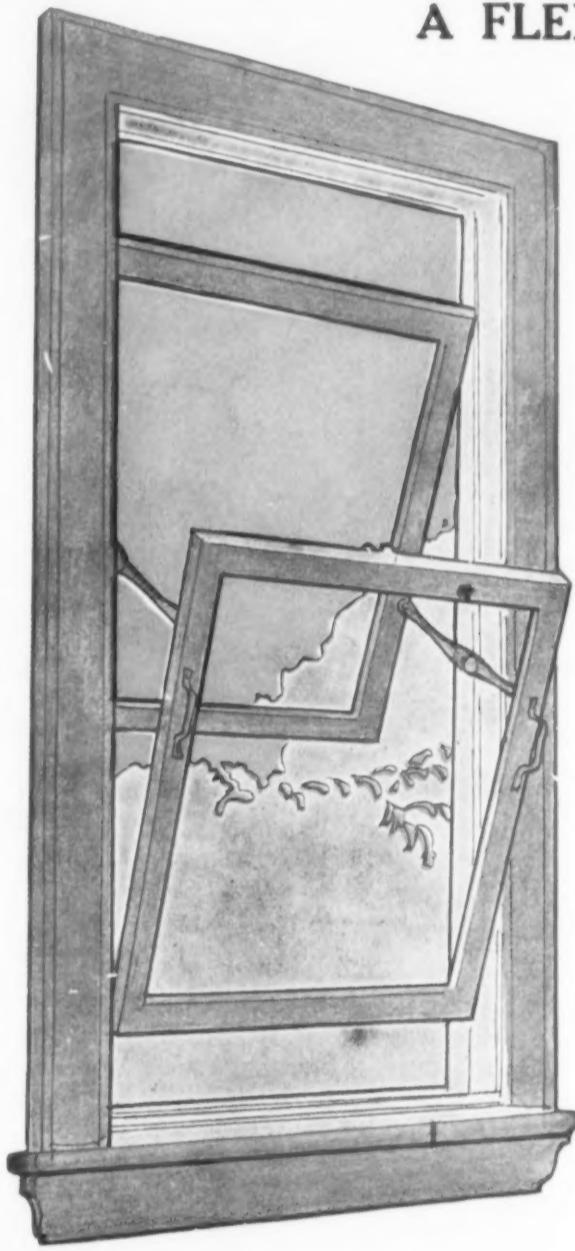
Firm.....

Address.....

Please send Illustrated Bulletin on School Floors

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PROVIDE HEALTH-GIVING FRESH AIR WITH A FLEXIBLE CONTROL OF DAYLIGHT



Before deciding on the Window question write us for particulars regarding AUSTRAL WINDOWS.

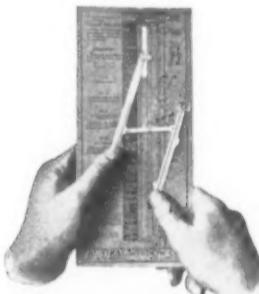
The advantages of Australizing your school are important elements in Modern School Room efficiency. The School Room must have fresh air without draft.

AUSTRAL WINDOWS will add nothing to the cost of your building, but they will add a permanent source of health and comfort to those occupying the classroom.

They present the most modern development of window design and construction, with particular reference to—

- proper and properly adjustable ventilation without mechanical contrivances, or the creation of drafts;
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- simplicity of construction and manipulation;
- adequate use of the window aperture;
- adaptability to any material (wood, rolled steel, metal covered or hollow metal construction);
- economy of installation;
- elimination of maintenance costs.

The AUSTRAL WINDOW answers every requirement.



A model demonstrating the advantages of the Austral Window will be mailed upon request.

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